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PRICE BROS. TO BUILD NEW PULP AND PAPER MILL

Work To Begin Immediately on New Plant at St. Joseph d'Alma, Quebec, on Plant, which, It Is Expected Will Be Ready To Produce 200 Tons of Paper Sometime in January, 1926 — This Production, Together With the Production of 200 Tons Recently Added at the Kenogami Plant, Will Bring the Production of the Company Close To 700 Tons Daily

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., August 18, 1924.—Price Bros. & Co. will start work shortly on the erection of a new pulp and paper mill at St. Joseph d'Alma, Que. It is expected that a beginning will be made about the middle of the present month and that five or six hundred men will be employed, which number will be augmented as the need arises. The work will not be completed until January of 1926, by which time it is expected the mill will be ready to produce 200 tons of paper a day, and this amount will be gradually increased until in 1929 the daily production will amount to 600 tons. The mill will be built directly opposite the village of St. Joseph d'Alma, on the far bank of the river. The production of 200 tons additional, together with the recent addition of 200 tons at the Kenogami plant, will mean a total increase of 400 tons, bringing the production by the company close to 700 tons a day. The original intention was to increase by 600 tons by the beginning of 1926. The reduction in this program by 200 tons will help to ease the situation in Canada, where the carrying out of the complete program as originally outlined would have created a considerable surplus. It may be added that at present Price Bros. & Co. supply over a score of newspapers with newsprint.

Price Bros. & Co.'s Customers

Its list of customers is as follows:

United States—New York Times, New York Tribune, Philadelphia North American, Philadelphia Record, Philadelphia Public Ledger, Richmond News Leader, Syracuse Herald, Washington Star, Buffalo Courier, Akron Times, Buffalo Express, Christian Science Monitor, Columbus Dispatch, Louisville Courier Journal, Nashville Banner, Pittsburgh Post.

Canada—Montreal Herald, Montreal Witness, Quebec Telegram, Quebec Chronicle, Hamilton Spectator.

Will Oppose Riordon Sale

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., August 18, 1924.—The unsecured creditors of the Riordon Company, Limited (in liquidation), have decided to launch a campaign to oppose the proposed sale of the Riordon assets on September 8.

The organization and work of handling the fight will be in charge of the Retail Merchants Association of Canada, a number of whose members are amongst the heaviest of the unsecured creditors. A sepcial meeting of these creditors was held July 26th last, presided over by A. L. Perkins, general merchant of Powassan, Ontario, whose net loss exclusive of interest is $148,825.19.

The meeting decided to request the General Merchants Section of the Association to take up the case and prosecute it vigorously to the utmost limit with all the power at the command of the Association on behalf of the unsecured creditors whether resident in Canada, the United States or other countries.

The committee have circularized the unsecured creditors and a large fund is being raised to fight the case.

It is also understood that a group of the preferred shareholders of the old Riordon Pulp and Paper Company has sought legal advice and are going to put up a case on the grounds that the equity back of their holdings was disposed of without their consent.

New Record for News Print at Kenora

[FROM OUR REGULAR CORRESPONDENT.]

KENORA, Ont., August 18, 1924.—The Backus-Brooks Company has established a new world's record for news print production on the latest 234 inch Dominion Engineering machine recently installed there.

On Saturday, August 9, the machine produced 110.72 tons at an average speed of 750 feet per minute, trim 219 inch of news print of a basis weight of 24 x 36 x 34. During the twenty-four hours there was a total loss of time of fourteen minutes, made up of ten minutes for a shut down at 7:50 a.m. Sunday morning and four minutes for a broken control belt on calender drive.

The paper ran continuously without a single break, and the efficiency of the machine based on twenty-four hours' operation, was 99.1 percent.

This record will no doubt be improved upon in the near future as the speed is gradually being built up, and the above record was made on the first day that the machine attained the speed of 750 feet.

P. T. Dodge Place New Power Plant in Operation

[FROM OUR REGULAR CORRESPONDENT]

GLENS FALLS, N. Y.—When Philip T. Dodge, chairman of the board of directors of the International Paper Company recently threw the switch which officially placed in operation the new $1,000,000 power plant under construction for the last year at Feeder Dam, three miles north of this city, the action marked the completion of another unit in the ultimate development of the water power resources of the Upper Hudson River. The new power plant which has a capacity of 7,500 horsepower is owned by the Moreau Manufacturing Company, which is composed of officials of the International Paper Company, Finch-Pruyn & Co., Inc., and Adirondack Power and Light Corporation.

PLANNING SOON TO REOPEN CHICOUTIMI PULP MILLS

Plant Which Has Been Closed Since February Will Be Opened in a Few Days—Proposed Merger of News Print in St. Maurice Valley Will, it Is Believed, Be Brought to the Front Again After the Vacation Season—Laurentide to Move Sales Office from Grand Mere to Montreal —Backus Co. to Spend Several Million Dollars in Rebuilding of the Norman Dam on the Lake of the Woods.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., August 18, 1924.—The news is confirmed that the mills of the Chicoutimi Pulp Company at Chicoutimi, Que., closed since the month of February, will be reopened here in a few days by liquidators. These mills employ more than a thousand men, who have remained without work during this season, which is the most difficult of the year. In the spring, a number found employment by going away from Chicoutimi, but fathers of families employed there from 15 to 20 years to a great extent remained without work. J. E. A. Dubuc is now at Chicoutimi and assures the population that work will recommence without delay. Also, the thirty thousand tons of pulp on hand will be sold and several ships are waiting to carry this to England.

Merger Still Talked Of

Although little has been heard of late concerning the proposed St. Maurice Valley news print merger, it is believed in well-informed circles that it will come to the front again after the holiday season. Similarly the Abitibi-Spanish River is said to be by no means dead and there is a suspicion that the plan has made further progress than is generally suspected. It is believed that most of the details concerning the proposed Abitibi-Spanish River merger have been lined up and no doubt the recent strength of both issues is due to this fact.

Laurentide Co. Moves Sales Offices

The Laurentide Company announces the removal of its sales office from Grand 'Mere, P. Q. to Montreal. For some time E. L. Crooker, the sales manager for the Laurentide Company, has spent much of his time in Montreal where he has his residence. The Laurentide Sales office will be located in the Canada Cement Building, where the Canadian Export Paper Company offices are. The only member of the Laurentide sales staff affected by this new order is S. H. Smith, who has already moved to Montreal. William Fowler will remain in Grand 'Mere for the present as the sales department's representative there.

The recent firming in the price of Laurentide stock to 87½ has been due probably to confidence that the annual statement for the year ending June 30th last will be a favorable one. Last year the company showed 6.9 per cent earned on the capital stock and it is generally believed in circles close to the company that, somewhat higher percentage of earnings will be set forth in the forthcoming statements. It is understood that during the past year the Company acquired several blocks of new pulpwood limits. Whether part of the payment of these will come out of earnings, or whether most of it will be shown in increased bank loans is mainly a matter of bookkeeping and will not affect the real strength of the Company's position. It is known that large blocks of stock have been steadily picked up during the last few months for investment account.

Backus Co. to Rebuild Norman Dam

A despatch from Winnepeg states that between 500 and 600 men will be employed and several million dollars will be spent on the rebuilding of the Norman dam on the Lake of the Woods, which will commence in a few weeks, according to E. W. Backus, president of the Backus-Brooks Lumber Company, of Minneapolis. Reconstruction of the dam is necessary to provide sufficient power for the company's new plant at Kenora, which is the largest of its kind in the world and produces 98 tons of paper per day at present. On completion of the extension and when running to capacity, one unit alone will provide 135 tons of paper daily. The only limit to the output will be the amount of power available at the dam. Enough pulpwood is obtainable on the limits held by the company to provide raw material until the present growth reproduces itself. The new dam, now projected, will supersede one built 28 years ago, which has been outgrown by the industry, and is now also out of repair. As the Norman dam is one of the controlling factors in the maintaining of international water levels, negotiations between the company and the Dominion Government were necessary before the new work could be authorized, and Mr. Backus announced that satisfactory arrangements had been practically completed. The work, it is estimated, will require about 18 months to complete and construction will be carried on without intermission during the winter.

Timber License Form Outlined

An Order-in-Council respecting the form of timber license or lumbering permit on the timber limits of the province, has just been issued by the Provincial Government of Quebec by virtue of which the form has been changed so as to authorize those named in the permit or license to cut timber on the territory named and to hold and occupy the territory to the exclusion of all others, for the same purposes, between prescribed dates, with the right to transport the timber across the unoccupied or waste lands of the Crown, and by virture of the license by others having no right to the land assigned, with the power to seize and take possession of the same, wherever it may be in the province of Quebec. The license, however, is subject to the following conditions: The ground rent for the renewal of the license must be paid on and before the first of September next. Affidavits stating the quantity and description of the timber cut under the license and other particulars in conformity with the forms supplied by the minister must be deposited in his office before the 30th of June next, or before the drive in certain cases.

Clearances must be obtained for all timber cut before it leaves the limits; and in order that timber cut on private lands may be exempt from dues, affidavits must be filed in the minister's office showing on what lots such timber was cut and the quantity cut on each lot. The licensee is bound on paying the ground rent for the renewal of his license to declare under oath whether he is still the bona fide proprietor of the limit or whether he has sold or transferred it, partly or wholly, and for whom he holds it. All persons authorized by the Minister of Lands and Forests may at any time make roads and use the same for travelling on the leased land. Any person settling under lawful title within the limit shall not be molested in any way in his clearing or farming operations by the licensee or his representatives; and the timber cut by him in his clearing operations in conformity with his location ticket shall belong to him. Finally, the licensee or his representatives shall comply with the law and with all regulations that may be established or enacted in the culture.

"Jack" Ayers Gives Site for Town Hall

By a large majority electors voted approval of the new by-law number which authorizes the corporation to issue five and one-half per cent bonds to the amount of $60,000 for the purpose of carrying out various public works, including improvements to water works, completion of new roads and drains, construction of a new steel bridge and a new Town Hall, and repairs to and conversion of the old Town Hall.

The site on which the new Town Hall will be erected is a gift to the corporation by J. T. Ayers.

CHICAGO TRADE PLANNING AGGRESSIVE SALES CAMPAIGN

An Active Play for Business Will Be Made with Beginning of Fall Season—More Inquiries Being Made Regarding Coated Papers—Twine Market at Last Shows Better Condition—Western Division of Salesmen's Association to Hold Another Outing on September 16—Shippers to Make Study of Gulf Rates—Empire Paper Co. Makes Good Use of Clock for Advertising Purposes.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, August 18, 1924.—Preparations are under way, not only in Chicago, but in the entire middle west, for the launching of an aggressive sales campaign by practically every interest in the paper industry at the opening of the Fall season. Sales organizations are being rounded out so that at the first indication of activity they may start off on the right foot for some effective work.

There is a confidence abroad that augurs well for a profitable season. While actual business booked now does not exceed expectations by any means, yet the number of inquiries coming in are of a sort that indicate some worth-while business ahead. In general, prices hold steady. Of course, there are some divisions in which production costs are cutting a new figure, due to the scarcity of raw ingredients which naturally have climbed higher.

Numerous Inquiries for Coated Papers

The coated paper market has registered no definite change either way. Indications are for a decided betterment very shortly. Inquiries on catalog jobs are daily becoming more numerous, but a representative of one large paper house states that even more will turn up next month. These inquiries are not now bringing in much business, but their very nature portends a heavy placement of orders within the next thirty days. Prices are steady.

With the windup of the summer season the bond and writing paper market is taking on somewhat of a different aspect. Bonds for the most part have been spotty all during the hot months. Nothing certain could be assured from one week to the next. However, now with the scarcity of rags, which form a principle ingredient of writings and high grade bonds, a shortage, to a certain extent, is in view. Increased prices, while not yet in evidence to any marked degree, seem bound to come if the shortage continues indefinitely. Manufacturers generally are reported as having no more than a two weeks' supply of rags on hand, whereas they seek to maintain an average of five or six weeks' supply. An increased demand for rags is considered a signal for advances in this raw material. Inventories of finished paper are also low both in the hands of mills and dealers. It would seem, therefore, that a renewed activty in the demand for the writing grades of paper will carry with it the possibility of higher prices on writings.

Twine Prices on the Incline

A better condition prevails in the twine market at present, according to reports of paper merchants who handle this stock. A tendency toward higher price levels is apparent, principally because the cotton used in making these twines has advanced of late. There is also a better sale for twines at present than there has been for some few months.

Stronger demand for paper stocks has shot prices up 10 per cent at least over prevailing figures of two weeks back. The market was due for an upturn because prices had receded during July to a very low ebb. However, it now develops that while prices are higher there is a serious lack of stock to supply the needs of those who would take it. There is just half as much coming in as is usual for this time of year. It is reported that it will take from thirty to sixty days to get stocks back to normal and where dealers can run their plants on full time again. Board mills are running nearer to full capacity than they have for some months. One mill was said to have approximately ninety days' business booked already with every prospect of its increasing right along. All this put a new feeling into the industry and factors in this branch believe that the Fall will witness a complete change for the better.

Salesmen Plan Second Outing

Another one of those memorable outings is to be staged by the western division of the Salesmen's Association of the Paper Industry on Tuesday, September 16, according to advice received from R. B. Harbison, western manager for the International Paper Company, with headquarters in the Conway Building, Chicago. Mr. Harbison will again serve as chairman of the committee on arrangements and the affair will be held again at his particularly favorite golfing grounds, Olympia Fields Country Club, just south of Chicago, the only field in the world which has four complete courses. While this is being given by the western division of the association, it is open to all members of the organization throughout the country, and many are expected to attend from far corners of the nation. Golf will be the principal attraction of the day, while other features will be added in the evening.

Shippers of Chicago to Study Gulf Rate

The freight rate situation now maintaining between Chicago and points in Texas and Louisiana on the Gulf of Mexico is to be thoroughly studied by a special committee of the Chicago Shippers' Conference Association, just appointed by George A. Blair, traffic manager of Wilson & Co., Chicago. This situation is no doubt also of vital interest to those of the paper industry who have occasion to ship paper between these points.

Empire Wins Attention with a Clock

A clock is one of the most useful articles used by man and realizing this, the Empire Paper Company, has used one to advertise its business, or rather to get attention to it so that the passerby might read the signs on the outside windows. Therefore a large clock with a white face has been placed directly in the center of one of the large plate glass windows facing on Wells street. It is regulated by Western Union all the time so it is accurate. Just across the street is an inclined trolley line, which also provides for considerable traffic. There is a turn in the thoroughfare just at that point so that many thousands of people daily can make use of this clock which faces the street. At the same time they look at it, they get another impression of the firm, because they are practically required to read the name as they look. It is this reiteration of the name in their minds that causes them to think Empire when they think paper.

Activities of the Paper Trade

George S. Johnston, manager of the Western Paper Company, Omaha, Neb., is now spending a very pleasant vacation with his family in northern Wisconsin.

Percy Truitt, of the Missouri Interstate Paper Company, Kansas City, Mo., was a business vistor to the Windy City this week.

G. E. Runcie, of the Chicago office of the Champion Coated Paper Company, is now away on his vacation, spending a good share of the time on various golf links near and around Chicago.

Bob Butterworth, Chicago manager for the Champion Coated Paper Company, spent the week end with Mr. and Mrs. Alexander Thomson, of the Champion Company, at Harbor Springs, Mich.

J. B. Jones, purchasing agent for the Western Newspaper Union, Omaha, Neb., is now spending part of his vacation with a daughter in Oregon.

Harry D. Thomas, president of Parker, Thomas & Tucker Paper Company, Chicago, has returned from a three weeks' vacation in Wyoming. Clarence Holilmir, of the same company, is now away on his vacation.

SLIGHT IMPROVEMENT SEEN IN TORONTO PAPER TRADE

Canadian National Exhibition Expected to Give Impetus to Business — Minister of Lands and Forests Making Survey of Forests in British Columbia — Annual Meeting of Spanish River Pulp and Paper Mills to be Held Monday — President Taylor of Combustion Engineering Co. to Study Swedish Pulp Industry — Great Lakes Paper Co. to Start Work On News Print Mill.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Canada, August 18, 1924.—There is no change in the paper market except a slight improvement in a few lines. Business is, however, expected to pick up somewhat during the next few days as the Canadian National Exhibition will be in progress and this, being the biggest event of its kind in Canada, is always sure to attract a large number of outside buyers, who come to the city from various points in the Dominion not only to take in the exposition but to do some business. The different wholesale houses are making preparations to welcome their customers and give them a good time during their stay in Toronto, when purchases are made for fall requirements.

Mills are operating to about seventy per cent capacity which is not quite as good as during the corresponding period of last year. In the rag and paper stock line there is a good demand for cotton cuttings and roofing rags and a fair call for rope. Paper stock of all grades is enjoying quite a pronounced requisition and prices are advancing. Stock is scarce and collections have been poor owing to low prices. Dealers say that any increase in demand will mean a rapid rise in prices.

At the last luncheon meeting of the Ontario division of the Canadian Paper Trade Association, which was held in Toronto, the chief question for consideration was whether the long price list, which has been in vogue for the past year or two, should be continued. The matter will be further discussed at the annual gathering of the Canadian Association which will be held within the next few weeks. Many complaints against the long price list are being received from country printers, who are protesting against its continued use and contending that a net price list would be more satisfactory.

The E. B. Eddy Company, of Hull, have notified the trade that, owing to the installation of additional equipment at their plant, they are now in position to supply a larger quantity of sheet news and, by the end of the year, will be able to furnish increased tonnage in roll news.

Aerial Survey Service for Forests

Hon. James Lyons, Minister of Lands and Forests for Ontario, is at present in British Columbia gathering information on conservation and making a survey of the forests in that province. In return Mr. Lyons will outline to the Forestry Department of British Columbia the success which has been attained in Ontario with the newly created air survey plan. British Columbia is adopting the aeroplane protective system and practical information from Ontario was requested.

Spanish River Company's Annual

The annual meeting of the Spanish River Pulp and Paper Mills will be held in Toronto on September 25. It is expected that the annual statement, which will be issued in the near future, will be a highly satisfactory one as the company has enjoyed a good year. The regular monthly meeting of the directors was held last week and among those present from out of town were P. B. Wilson of Sault Ste. Marie, vice-president of the company; George R. Gray, woods manager, Sault Ste. Marie; C. E. Reid, Ottawa, and T. H. Watson, Galt. George H. Mead, of Dayton, Ohio, president of the company, who has been on the sick list for some time, is at present on the Maine Coast enjoying the cool breezes.

Will Study Pulp Industry in Sweden

Alfred P. T. Taylor, president of the Combustion Engineering Company, Toronto, who has been in England attending the world power conference and investigating the latest developments in power plant design, has been appointed to conduct an extensive investigation throughout the pulp and paper industry of Sweden and Finland, with special reference to the economical use of steam. Mr. Taylor will go from Sweden to Germany and is not expected back in Toronto for several weeks. He will devote a good deal of time to the Ruths' accumulator and also to the methods used in Sweden for the drying of wood refuse, a new form of dryer having been recently developed, using waste gases from the boiler plant.

Locating Settlers at Gardiner

A. M. Moffat, of Gardiner, Ont., formerly of Toronto, who is well known in pulpwood circles, was in Toronto during the past week and reports that there is considerable cutting of wood at Gardiner, which is sixteen miles north of Cochrane on the new extension of the T. and N. O. railway. Mr. Moffat has located thirty-five settlers at this point and they have been busy cutting and peeling pulpwood for the past few weeks.

Notes and Jottings of the Industry

W. L. Goodwin, vice-president of the Standard Paper Manufacturing Company, Richmond, Va., was in Toronto calling upon the trade last week.

John M. Finlay, secretary-treasurer of the firm of Ritchie and Ramsey, coated paper manufacturers, Toronto, and Mrs. Finlay, have returned from an extended motor tour through Michigan and Western Ontario points.

Norman J. Ratcliff of the Ratcliff Paper Company, Toronto, and Mrs. Ratcliff are spending their holidays at Pinelands, Muskoka Lakes.

Fred. W. Halls of the Fred. W. Halls Paper Company, Toronto, is enjoying his vacation at his summer home at Sturgeon Point, Ont.

A. G. Allen of Paper Sales, Limited, Toronto, and Mrs. Allen are holidaying at Lake Simcoe and Georgian Bay points.

W. S. Barber, secretary of the Provincial Paper Mills, Toronto, and Mrs. Barber are enjoying a boat trip to Quebec and the Saguenay river.

Col. Thomas Gibson, vice-president of the Spanish River Pulp and Paper Mills, Toronto, spent the past week in New York city attending directors' meetings of the Lake Superior Corporation and the Algoma Steel Company, of which he is general counsel.

The many friends of George Carruthers, president of the Canadian Pulp and Paper Association, Toronto, are extending sympathy to him in the death of his mother, Mrs. Jean Carruthers, which took place at Avening, Ont., during the past week. Mrs. Carruthers was 76 years of age.

I. H. Weldon, president of the Provincial Paper Mills, Toronto, has returned from a fishing trip to the French river. S. F. Duncan, treasurer of the Provincial Paper Mills, is spending a holiday among the Muskoka Lakes.

S. J. Robinson, of Auckland, New Zealand, who is a director of B. J. Ball, Limited, wholesale paper dealers, of Sydney, Australia, and Auckland, N. Z., was in Toronto last week calling upon the trade and making arrangements to handle a number of lines of Canadian papers in the Antipodes.

The Interlake Tissue Mills Company, Merritton, Ont., are making a creditable exhibit at the Canadian National Exhibition, which is now in progress in Toronto.

MATHIESON System

Let the List Speak for Itself!

THE following prominent paper mills use and indorse the Mathieson System for preparing bleach liquors from Liquid Chlorine:

Champion Fibre Company, Canton, N. C.
Consolidated Water Power & Paper Co., Appleton, Wis.
Crystal Tissue Company, Middletown, Ohio
Dill & Collins Company, Philadelphia, Pa.
District of Columbia Paper Mfg. Co., Washington, D. C.
Hammermill Paper Company, Erie, Pa.
Hamersley Mfg. Co., Garfield, N. J.
Mead Fibre Company, Kingsport, Tenn.
Nekoosa-Edwards Paper Company, Port Edwards, Wis.
Port Huron Sulphite & Paper Company, Port Huron, Mich.
Provincial Paper Mills, Port Arthur, Ont., Can.
Riordon Pulp Corp., Hawkesbury, Ont., Can.
S. George Company, Wellsburg, W. Va.
Sweet Bros. Mfg. Co., Inc., Phoenix, N. Y.
The Smith Paper Company, Lee, Mass.

Could there be any more convincing evidence of the superiority of our system than the names in the above list?

The MATHIESON ALKALI WORKS Inc.
25 WEST 43rd STREET NEW YORK CITY
PHILADELPHIA PROVIDENCE CHICAGO CHARLOTTE

EAGLE THISTLE PRODUCTS

Deal Direct with the Manufacturer

Bicarbonate of Soda
Liquid Chlorine-Caustic Soda
Sesquicarbonate of Soda
Bleaching Powder-Soda Ash

PHILADELPHIA PAPER TRADE BRIGHTENS UP CONSIDERABLY

Wrappings Have Most Pronounced Improvement While Interest in Fine Papers Shows Notable Increase — Riverside Paper Mills Co. Starts Manufacture of Brandywine Bonds — Vernon R. Schroff Opens Warehose at 708 South Delaware Avenue — D. L. Ward Co. Expands Display Room — J. W. Stanley Co., Roofing Concern, Starts Business — Staple Co. to Handle Specialties.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., August 18, 1924.—There was a marked increase in the inquiries for future orders in both branches of the local paper trade during the second week of the month and with it the local dealers took a more optimistic view of the future. While both branches of the paper distribution industry enjoyed the more numerous inquiries, and in many cases actual orders, the chief center of this prospective business was the Wrapping Paper Division which long has been dormant. While the fine paper division started on its road to improvement in the closing days of July, the wrapping paper section remained in the same dull state that has been prevalent ever since the summer made its appearance. Last week, however, there were most hopeful signs that it too would come in line for the betterment in all lines, but particularly for wrappings. Prices, however, have not been advanced but there is some talk emanating from the mills of an increase in the price of krafts very shortly.

Fine Paper Inquiries Numerous

Actual orders for fine papers were not as numerous as in the first week of August but the inquiries were there aplenty. From the printing establishments catering to campaign supplies for the coming political drive in this State there are inquiries for orders to be fulfilled in late August or early September for large quantities of printing papers such as books for pamphlets, cardboard in the small and broadside sizes and other grades used in the circulation of propaganda for both parties.

The news print situation, a very quiet one during the summer days, is now on the verge of becoming more active, with the return of the newspapers to the more active fall advertising campaigns for the department and other mercantile establishments. Cheap news remains at the prices quoted when the 10 cent per 100 lbs. reduction was made a few months ago, and is priced at $3.65 f. o. b. from the mills. Contract prices in very rare cases are around $3.50 and come from but a single mill at this price. The present activity in news is centered in the odd lot cheap grades.

There is a livelier tone to the stock market, especially for the paper grades heretofore very dull. Mill demands and inquiries are more frequent. The lower grades have advanced from $1 to $2 per ton because of active movement.

W. C. Hamilton & Sons to Make Bonds

For the first time in the business history of the paper manufacturing concern of W. C. Hamilton and Sons, or more recently known as The Riverside Paper Mills Company, and located at Miquon near Philadelphia, there is being produced in the mills a line of bond papers to be marketed as the Brandywine Bonds. The firm is producing these high grade bonds in white and six colors, and they have become a permanent feature of the various lines of paper produced by the mills and including books and ledgers under the Bright White and Hamilton White Ledgers and the Hamilton Mello Books, Laid Mimeographs and Hamilton Offset brands, added since the mills were organized in 1853. There is also produced Hamilton's English Finished colored and white envelopes. The Hamilton Mills will appoint various paper houses scattered throughout the country as distributors for this line of bonds. Lindsay Brothers of Philadelphia have been appointed to represent the line locally. The Hamilton Mills, a few months ago, passed into the control of Howard W. Taylor, formerly vice-president of the Dill and Collins Company, who was made president of the Hamilton organization. With the reorganizing of the company, Carl Lincoln, formerly with the American Writing Paper Company, became manager and recently J. H. Duncon was appointed assistant manager. President Taylor is now on a vacation sojourn in Pocono Lake.

Vernon R. Schroff Opens Warehouse

Vernon R. Schroff, long associated with the Quaker City paper trade, and recently conducting a mill representation office business in the Drexel Building, has taken over a combined sales office and warehouse establishment at 708 South Delaware avenue. For many years identified with the old firm of Magarge-Hare, Mr. Schroff upon the dissolution of that firm became engaged in business on his own account as the Read Paper Company, the title still continued by the firm, dealing in fine papers and specialties such as wrappings and other coarse papers. In the new quarters he will carry a complete stock of all the lines for which he is local representative, ready for immediate delivery.

New Roofing Concern Organized

Following a long experience in the roofing and building paper section of the trade, James W. Stanley has opened his own business as the J. W. Stanley Company, in the sales offices and warehouses, 3312 Lancaster avenue. For 17 years Mr. Stanley was connected with the building and roofing paper department of Riegel & Co., and in recent years as its manager. When Riegel & Co. removed to its new home at Sixth and Cherry streets a few days ago, the roofing department was discontinued and the lines of the mills operated in East Walpole, Mass., by Bird and Son were transferred to the newly organized Stanley Company through which the local distribution of building and roofing papers will be made.

Staple Products Co. Handle Specialties

A line of paper specialties will be carried by the recently opened business of the Staple Products Company, 1336 Windrim street, of which Paul L. Adams is head. The firm will devote the Windrim street address solely to the sales department while a warehouse is maintained at 6525 Huber street. The lines distributed in wholesale are wax paper packages, tissue packages, white wrappings, white bonds for the wrapping trade, sales books and Holly Wraps for the holiday trade. The package goods are specially packed small lots to be sold over the retail counters of stores or in larger quantities if desired.

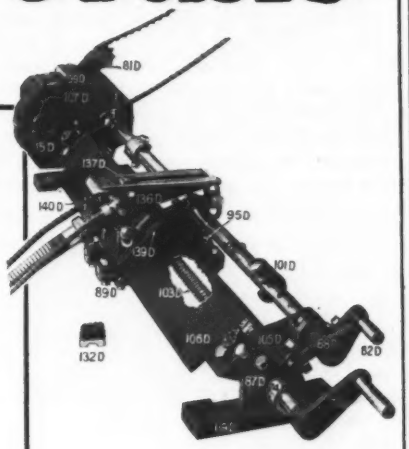
D. L. Ward Co. Extends Display Room

Simultaneously with the announcement by the D. L. Ward Company, 28 South Sixth street, of the taking over of the distribution of the Linweave Announcements, there was made public the plans of that firm to develop one of the most comprehensive displays of the various lines of printing papers adapted for Direct By Mail Advertising and other printing and engraved purposes ever made by a paper house in this section of the country. The Ward Display Department, under the management of William A. Hentz, will occupy four times the space formerly given over to the Service Department on the second floor and will be removed to the front section of the building adjoining the offices of President George W. Ward. Elaborate wall cases are to be installed all along the sides and extending to half the length of the floor space. In these cases are to be displayed thousands of actual printed and engraved specimens showing the effectiveness of the Strathmore, Worthy Paper Company, Hammermill and other lines comprising the group of mills represented in the National Announcement Association. There will be included the assembled assortments of the P. P. Kellogg Division of the United States Envelope Company, with sheets, envelopes and cards comprising announcement assortments made up by

(*Continued on page 66*)

80% Repeat Orders

Here are the Reasons



The Vickery Felt Conditioner counteracts the actual causes of felt troubles.

Production increases. It keeps the felt in proper condition from the time the felt is new until it is worn out without interrupting the continuous production of paper.

The quality of the sheet is more uniform because the felt is always in good condition.

Felts last longer under most conditions.

Over 300 Vickery Felt Conditioners are in operation in 14 different countries. Eighty per cent of these were repeat orders. Write us today.

BIRD MACHINE COMPANY
SOUTH WALPOLE ~ MASSACHUSETTS

Western Representative
T. H. Savery, Jr., 1524 Republic Bldg.
Chicago, Ill.

Canadian Builders of Bird Machinery
Canadian Ingersoll-Rand Co., Limited
260 St. James Street
Montreal, Canada

6453

VICKERY Felt Conditioner

BIRD MACHINERY

GROWTH OF PAPER MAKING IN THE UNITED STATES

[FROM OUR REGULAR CORRESPONDENT.]

OGDENSBURG, N. Y., August 21.—"The application of power and equipment to the paper-maker's job has increased a man's effectiveness nearly 7,000 times," said R. S. Kellogg, secretary of the News Print Service Bureau, speaking at the luncheon of the Rotary Club of this city today. "Until about a hundred years ago," he continued, "paper-making was a slow, laborious, hand process. It is said that a Chinese craftsman, dipping his mold into a vat of fibers, could make about 1,200 sheets a day. With modern machinery, such as can be seen in operation at the plant of the Algonquin Paper Corporation here in Ogdensburg, the labor of only one man is required to produce the equivalent of 700,000 sheets of news print paper a day, and more than 100 tons of paper are being made on one machine in 24 hours.

Age-Long Search for Writing Materials

"There has been an age-long search for materials upon which to record the experience, observations and speculations of mankind. Hundreds of substances have been tried. It is a far cry from the drawings made with colored minerals upon cavern walls in France to the baked clay tablets of Babylon, the papyrus of Egypt and the specially prepared skins of animals, down to the material which we now call paper. Papyrus furnished the best recording material the world knew for 5,000 years and from it was derived our word "paper," although the pressed thin sheets of papyrus pith were never true paper in the sense of being a felted sheet of vegetable fibers, made by processes of maceration with subsequent drying and surfacing.

"Without some means of recording the results of human activity, progress is impossible and world progress has been coincident with the extent to which such records were made upon durable and easily transportable material. Only through the medium of paper has the diffusion of knowledge become possible.

Little But Rags Used Up to 50 Years Ago

"The first real paper was made from rags by the Chinese early in the second century A. D. and little but rags was used up to 50 years ago.

"Notwithstanding great improvements in the art of paper-making, the world was always short of paper until methods were devised for making it from wood. This, together with the corresponding developments in printing processes, made possible the tremendous increase in books, magazines, newspapers and other forms of publication during the past half century. Without them universal education would have been only the dream of the idealist without means of practical accomplishment.

"Along with the use of paper for printing has gone a tremendous increase in its use for other purposes and new ones are a matter of daily occurrence. A few figures show that in the United States at least we are now in what may be truly called a paper age. On the 1920 basis, the per capita consumption of paper in Russia and 6 pounds and in Japan 12 pounds; in Scandinavia, a region of general education, it was 33 pounds and in Germany, the most thoroughly schooled nation in the world, it was 45 pounds, but this was by no means the limit. At the same time the per capita consumption of paper in Great Britain was 76 pounds, while in the United States it was 150 pounds or, in other words, more than 3 times the consumption in Germany and practically twice that in Great Britain. This is convincing evidence of the wide diversity of the use of paper in this country.

"Still more may we say that we have gone into a newspaper age in the United States. Back in 1880—when we thought that our newspapers really amounted to a good deal—our consumption of news print paper was 3 pounds per capita; 14 years later, or in 1894, it was 3 times as much or 9 pounds; 25 years later or in 1919 it was 35 pounds, but at the present time it is 50 pounds per capita. In actual tonnage the United States is using 50 per cent more news print paper than all the rest of the world.

The First News Paper

"We are told that the first printing press in America was set up in Cambridge, Mass., in 1638, but it was 66 years later, or in 1704, that the first newspaper, *The Boston News Letter*, appeared—a little sheet of two pages, each 9 x 12 inches in size. It carried the date of April 24 and, boasting that it gave the people of Boston the latest news of the world, it carried dispatches dated in London carly in the preceding December, or 4 months and 20 days old. It may be noted in passing that among the important items appearing in this first American newspaper was a story about trouble in Ireland—and Ireland is still a prolific source of news for American papers.

It is a long jump from the two 9 x 12 page, *Boston News Letter*, slowly and laboriously hand-set and hand-printed to the modern linotyped, stereotyped newspaper, run on cylinder presses at the rate of nearly 50,000 copies per hour with pages twice the original size. Today there are some 22,000 newspapers in North America, the leaders of which are 2,000 English language dailies in the United States with a daily circulation of 31,000,000 copies and a Sunday circulation of 21,000,000 copies. The 61 dailies in the United States with circulations in excess of 100,000 each, have been averaging so far this year 28 pages for the daily issues and 104 pages for the Sunday issues. As a typical, but common example, it may be mentioned that a well-known newspaper increased its daily circulation from 93,000 copies in 1903 to 584,000 copies in 1923 and from 196,000 copies on Sundays to 932,000 copies in the same 20 years with corresponding increases in the number of pages of each issue.

Newspaper for Every Family

"There is a copy of a daily newspaper published for every family in the United States and Canada. The daily newspaper habit is well-nigh universal north of the Rio Grande.

"This tremendous growth in news print consumption has, of course, necessitated corresponding increases in the capacity of the news print mills to supply paper. For many years there has been a steady influx of capital into the producing industry, accompanied by the development of many new projects of great magnitude. Taking the United States and Canada as a commercial unit in this respect, the production of news print paper has grown from 569,000 tons in 1899 to 2,748,000 tons in 1923, equivalent to a yearly compound interest increase of 7%, which is perhaps as remarkable a rate of increase as has been seen in any industry over such a period of time.

Billion and a Half Dollar Industry

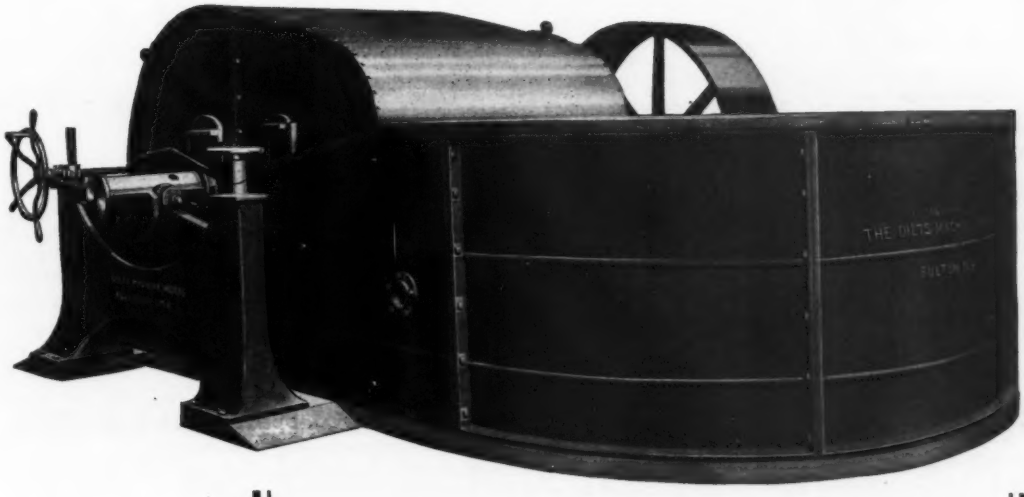
"Paper manufacturing in North America is a billion and a half dollar industry with the production of news print making up a very respectable proportion of the total investment and further notable developments under way. There were 10 new machines with a total daily capacity of 670 tons which came into production in 1923 and seven more of 600 tons capacity are scheduled for this year. The present North American news print mills have a rated capacity of 10,000 tons daily with further substantial additions under way for 1925, so that there should be no need for any publisher to go abroad for his supply of white paper.

"Wood is the only material now used for news print paper and notwithstanding the frequent news items concerning substitutes, practical men can see no chance of supplanting wood by any other substance for a long time to come, if ever.

"On the average, one and a half cords of rough wood are required

Dilts-

The importance of good beaters and skilled beater engineers



"Your paper is made in the beaters."

YOUR Beater Engineer controls the most important operation in the mill. He determines the quality of the stock that is to go over the machine—hence he controls the quality of the finished product.

The more experienced the Beater Engineer the more likely is he to choose Dilts Beating Engines. He knows that with Dilts Beaters his knowledge of paper making becomes an art.

Dilts Beaters make better paper at lower cost and there is practically no time lost for repairs. Have you Dilts Beaters in *your* mill?

7012

Dilts

MACHINE WORKS, Inc. FULTON, N.Y.

EXPORT OFFICE ~15 PARK ROW~ NEW YORK CITY

to make a ton of news print paper, consisting of approximately 80 per cent groundwood and 20 per cent sulphite pulp. On this basis, the news print paper made in the United States and Canada last year required four million cords of wood—chiefly spruce, balsam and hemlock—or about half of all the pulpwood used in North America. For many years the forest resources of the Continent have been drawn upon with a lavish hand for actual use in the development of our industries and in the settlement of our newer regions, but at the same time destruction by fire caused by human carelessness has been even greater than the quantity of forest material put to some useful purpose.

"It surprises many people to learn that our use of pulpwood amounts to only about 4 per cent of the total quantity of wood used for all purposes in North America every year, but the pulpwood problem is becoming acute, because the papermaker in general has so far used only a few species of timber which are not our most abundant kinds nor of widest distribution.

Timber Statistics Usually Misleading

"Statistics and predictions as to the length of our timber supply are generally misleading and inaccurate. We can be certain, however, that we are using and destroying our forest resources more rapidly than we are reproducing them and that there can be but one ultimate outcome of such procedure. It is for this reason that papermakers and paper users are particularly concerned in questions of forest protection, forest reproduction and forest utilization.

"A paper mill is much more of an establishment than is conceived by the casual reader of the newspaper. Paper mills follow the supplies of accessible pulpwood and abundant waterpower; for without them cheap paper and cheap newspapers are impossible. Incidentally, it may be remarked that a typical news print mill, among many other things, requires 100 h.p., 1 ton of coal and 100,000 gallons of water per ton of daily capacity of news print paper production. Among other items, one of the large Canadian mills last year received 2,052 carloads of coal, 172 cars of limestone rock, 148 cars of sulphur, 88 cars of alum and 24 cars of lubricating oil.

Average Capacity of American Mill

"The average news print paper mill in North America today is of 100 tons daily capacity, although at the present stage of development this is not the economic size for a mill which makes and uses its own pulp. This average 100-ton mill requires an investment of approximately 5 million dollars for plant, waterpower development and working capital without any ownership whatever of timber land. If it is to be backed up by adequate forest resources, capable of yielding annually and permanently the 45 thousand cords of pulpwood required, the equivalent of another 5 million dollar investment may be necessary, making a total of 10 million dollars for a completely self-sustained balanced operation or 100,000 dollars investment per ton of daily capacity to make news print paper."

Investment Per Unit of Product

"No other large forest industry has so great an investment per unit of product. The paper manufacturer must take a long look ahead if his investment is to be protected and the public furnished with the cheap and abundant supply of paper which it has grown to expect and is so much dependent upon it.

"On the closing day of the recent session of Congress, the McNary-Clarke bill embodying the basic principles of a national forestry policy became a law in the United States. Last month, the Pulpwood Commission reported as to the measures necessary to conserve the timber supply of Canada. There is urgent need for adequate State and Provincial action to make all forest land in North American continuously productive of timber crops—and the first essential is to prevent forest fires, three-fourths of which are caused by human carelessness."

Paper Stock Advances in Boston

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, Mass., August 18, 1924.—With advances in all grades of raw stock, the market has been a busy one during the past week.

There have been no heavy accumulations on hand either of finished board or of raw stock and when the general business activity started an increased demand for box board, it forced many mills into a market where there already was a short supply.

It is the feeling that these advanced prices cannot be maintained because the demand will not be maintained. Board mills are more anxious to care for their regular customers than they are to jump into a rising market and take orders at prices which may not permit a profit when viewed from the new prices on raw stock.

This whole situation has come about through the general awakening in business which has come upon New England within the past two or three weeks. The paper trade is quick to reflect such increased activity but no branch feels it more quickly than does the board and paper box trade. This fall activity is two or three weeks earlier this year than usual and nearly everyone has been caught shorthanded.

The demand for printing papers of all classes continues about the same with no marked increase in volume or prices. Mills have been fortunate in obtaining sufficient business to operate steadily if with some curtailment of forces. This is also true of bonds and ledgers. Stimulation of sales through advertising has resulted in steady demand for bonds as may be expected from the fact that printers and publishers are busy. As compared with other sections of the country the printers and publishers are seemingly better employed here than elsewhere and this of course is reflected in the paper trade.

Sayford Co. Specialties in Cigar Trade

Special arrangements have been made by the Sayford Specialty Company, with Philadelphia offices in the Drexel Building, for the distribution of its recently marketed small package of paper napkins to retail at 10 cents into the various cigar stores in this section. The innovation in the cigar trade has been successful in disposing of large quantities of the ten cent packet of napkins and are sold for picnics, auto outings and for general uses. The cigar trade is making a drive on the newest item to the smokers' counters by displays in both window and inside means. The Charles A. Krull Company, wholesale tobacco dealers on Second street above Arch, have been distributing large quantities to the cigar trade. The United Stores and Schulte Chain have also taken on the line.

American Paper Box Co. Incorporates

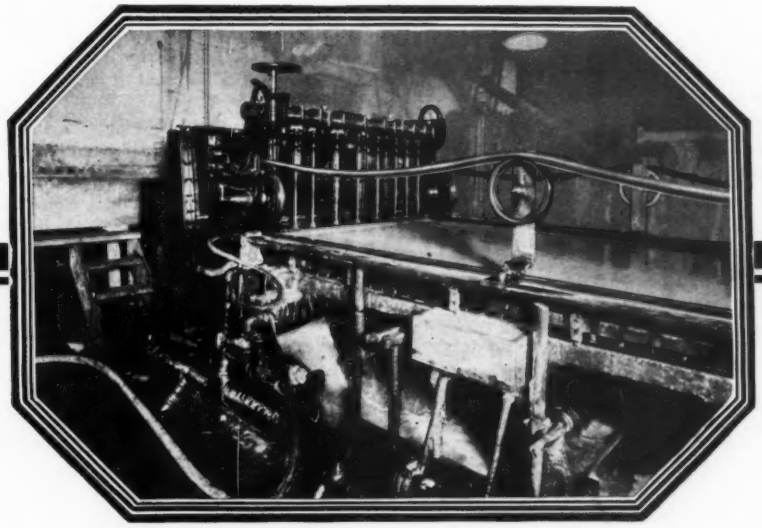
SAGINAW, Mich., August 16, 1924.—Articles of association have been filed at the department of state by officers of the American Paper Box Co. for the incorporation of the firm, with a capitalization of $75,000. Jacob H. Stark, president and treasurer, and his wife, Mrs. Dorothy Stark, were among the incorporators.

The concern, with plants in Saginaw and Bay City, was recently operated through a co-partnership in which Mr. Stark was a member and he purchased the interest of William Nagel and a new company bearing the same name, but with a larger organization and increased production program, has been formed.

Saratoga County Paper Co.'s Assets $141,349

TROY, N. Y., August 16, 1924.—Henry F. Toohey, Henry Meader and H. J. Settle, appraisers of the Saratoga County Paper Company, Inc., whose plant is at Ballston Spa, N. Y., find that the assets of the company are valued at $141,349. This is after 15 per cent depreciation is deducted. The principal items include land, $5,300; dwellings, $600; water rights, $5,000; buildings, $41,910; miscellaneous buildings, $15,500; machinery, $63,585; installation, $8,954, and miscellaneous new equipment, $14,534.

A Wisconsin Manufacturer of Wax Paper Cut the Variation in Caliper 75%, and Improved the Formation



Of Course, Your Product is "Different"—But You Can *Always* Improve It; So Read On

The Wisconsin manufacturer mentioned above writes as follows: "After we installed the Voith High Pressure Stock Inlet on our No. 1 Paper Machine, the variation across the sheet was reduced, average 75%, over what it was before the installation. Our formation also is very much better and more uniform. We have sent you an order for a similar installation on our No. 2 Machine."

The above picture illustrates the No. 1 machine referred to in the quotation, and shows the Voith Inlet in position. This is only one of many installations accomplishing the same results.

A book mill at Niagara Falls, N. Y., cut variation in caliper from 10% down to 1%, improved the formation materially, and increased its production 10%, with a Voith Inlet.

A bond mill in Pennsylvania improved the formation of its paper, reduced variation in thickness, and increased production over 10%. A Pennsylvania book mill achieved the same results, and a Wisconsin manufacturer of wrapping informs us that the Inlet is very satisfactory.

No matter what kind of paper you are making, if you use a Fourdrinier machine the Voith High Pressure Stock Inlet will improve the quality of your product. Whether your machine is run at fast or low speed, whether you make low priced wrapping or high priced bond, the Inlet will result in better paper at a lower cost.

We stand ready to give you full information regarding the above statement. An attractive illustrated booklet giving all particulars regarding the Voith Inlet is yours on request. Write for it today.

VALLEY IRON WORKS CO.

APPLETON, WISCONSIN

New York Office: 350 Madison Avenue

New York Trade Jottings

Roswell W. Goils, representing W. E. Wroe & Co. of Chicago, has opened an office at 225 Fifth avenue.

* * *

R. S. Kellogg, secretary of the News Print Service Bureau, spent yesterday visiting the news print mills in Watertown, N. Y.

* * *

R. S. Kellogg, secretary of the News Print Service Bureau was at Montreal, Three Rivers and Grand Mere last week visiting the paper mills in that section.

* * *

The A. B. Massa Paper Corporation has moved its offices from Room 703 in the Columbia Trust Building at 358 Fifth avenue to larger quarters in the same building, now occupying Suite 1001-1002.

* * *

The United Paperboard Company, Inc., reports net earnings of $423,420 for the fiscal year ended May 31, 1924. After allowing for depreciation and the dividend on the preferred stock the company reported a surplus of $43,944. Current assets of the company are $1,899,177, compared with current liabilities of $234,066.

* * *

A questionnaire which which the paper industry people should pay more than passing attention to is being sent out by the Joint Vocational Education Committee, 342 Madison avenue. Those who receive them are asked to answer such questions as "What is your job?" and "What do you do with Your Spare Time?" Then there is an attached card all addressed which is worth additional attention. By checking various items thereon one can obtain full information regarding correspondence instruction on such subjects as mechanical pulp, sulphite pulp, paper machines, paper finishing, apprenticeship training in paper mills, etc., etc. When you find one of these attractive pamphlets in your mail don't throw it aside until you give it the attention it merits.

Bids for Government Paper

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., August 20, 1924.—The Government Printing Office has received the following bids for 78,000 pounds of 24 x 38-39., No. 16 yellow sulphite writing paper; R. P. Andrews Paper Company, 7.62 cents per pound; Whitaker Paper Company, 8.47 cents; Dobler & Mudge, 7.698 cents; Reese & Reese, 8.2999 cents; Old Dominion Paper Company, 9 cents; American Writing Paper Company, 9 cents; Allied Paper Mills, 7.25 cents; Maurice O'Meara Company, 8.8 cents; Perkins-Goodwin Company, 8.57 cents and 8.65 cents; Lindemeyr & Harker, 9.5 cents; Bishop Paper Company, Inc., 8.5 cents; The Baxter Paper Company, 8.4 cents; R. A. Cauthorne Paper Company, 7.64 cents; Barton, Duer & Koch Company, 8.35 cents and 8.85 cents; Baltimore Paper Company, Inc., 8.6 cents; International Paper Company, 8.56 cents; Samuel S. Alcorn, 7.69 cents; Coy, Disbrow Company, Inc., 8.83 cents less 2 per cent; and Mathers-Lamm Paper Company, 8.48 cents.

The Printing Office also received the following bids for 40,000 pounds of 25 x 38" end paper: R. P. Andrews Paper Company, at 7.5 cents per pound; Whitaker Paper Company, 8.21 cents, 7.83 cents; Reese & Reese, 7.415 cents; Old Dominion Paper Company, 8.439 cents and 8.689 cents; American Writing Paper Company, 7.77 cents; Allied Paper Mills, 8.75 cents; Lindemeyr & Harker, 9.6 cents; Bishop Paper Company, Inc., 7.38 cents; Baxter Paper Company, 8.15 cents; R. A. Cauthorne Paper Company, 7.74 cents; Bryant Paper Company, 8 cents; Kalamazoo Paper Company, 8.5 cents; Barton, Duer & Koch Paper Company, 8.05 cents; Mathers-Lamm Paper Company, 7.48 cents; and Samuel S. Alcorn, 7.35 cents.

The Government Printing Office has received the following bids for 1,406 pounds of 21½ x 32½—37, pink antique book paper: R. P. Andrews Paper Company, at 13 cents per pound and American Writing Paper Company, at 9 cents.

The following bids have also been received for 30,000 fine white bond envelopes: Federal Supply Company, at $8.65 per M; Mathers-Lamm Paper Company, at $5.83; Union Envelope Company, at $5.45; R. Carter Ballantyne, at $9.00; Charles W. Beers Company, at $7.75; and R. P. Andrews Paper Company, at $6.94 and $7.93.

The Government Printing Office will receive bids on August 20 for 60 reams of 25½ x 34" white bristol. Bids will also be received on August 22 for 3,000 pounds of kraft wrapping paper in 24" rolls.

The Government Printing Office has received the following bids for 25,000 pounds of 22½ x 28½—100, white bristol board; R. P. Andrews Paper Company, at 9.1 cents per pound; American Writing Paper Company, at 11.47 cents; Whitaker Paper Company at 13 and 19 cents; Reese & Reese at 8.147 cents; Old Dominion Paper Company, at 8.29 and 8.99 cents; Carter, Rice & Co., at 11 cents; Dobler & Mudge at 11 cents; Barton, Duer & Koch Paper Company, at 10.95 cents; Mathers-Lamm Paper Company, at 11.23 cents; Royal Card and Paper Company, at 8.2 cents; Terminal Supply Company, at 10.4 cents less 1 per cent; R. A. Cauthorne Paper Company, at 8.43 cents; Maurice O'Meara Company, at 11.25 cents; Bishop Paper Company, at 10.75 cents; Lindemeyr & Harker, at 11.12 cents; Hano-Weinkrantz Company, at 8.5 cents less 1 per cent; and Baldwin Paper Mills, Inc., at 9.8 cents.

The Printing Office has also received the following bids for 4,800 pounds of 21 x 32—No. 9 green sulphite manifold paper; Maurice O'Meara Company, at 14.06 cents per pound; Import Paper Company, at 13.81 cents less 2 per cent; Old Dominion Paper Company, at 16.43 cents; Whitaker Paper Company, at 14.75 cents; R. P. Andrew Paper Company, at 15.25 and 16.85 cents; Dobler & Mudge, at 17 cents; Reese & Reese, at 15.215 cents; American Writing Paper Company, at 16 cents; Barton, Duer & Koch Paper Company, at 16.82 cents; Bishop Paper Company, at 17.9 cents; and Mathers-Lamm Paper Company, at 16.44 cents.

Acquires Interest in Bartlett Label Co.

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., August 18, 1924.—Richard E. Somers, for six years secretary of the Kalamazoo Label Company, has acquired the interests of the late S. E. Sproul in the Bartlett Label Company and has been elected president and general manager of that concern, already assuming his duties. The other officers named in the course of re-organization are C. R. Edwards, vice-president; Mrs. I. V. Smith, secretary and George T. Jubb, treasurer.

The Bartlett Label Company is Kalamazoo's oldest label concern, being organized 25 years ago by the late Russell E. Bartlett. It has built up a business extending to all states in the Union. Mr. Somers announces that the concern will remain in its present quarters at North Park and Eleanor streets.

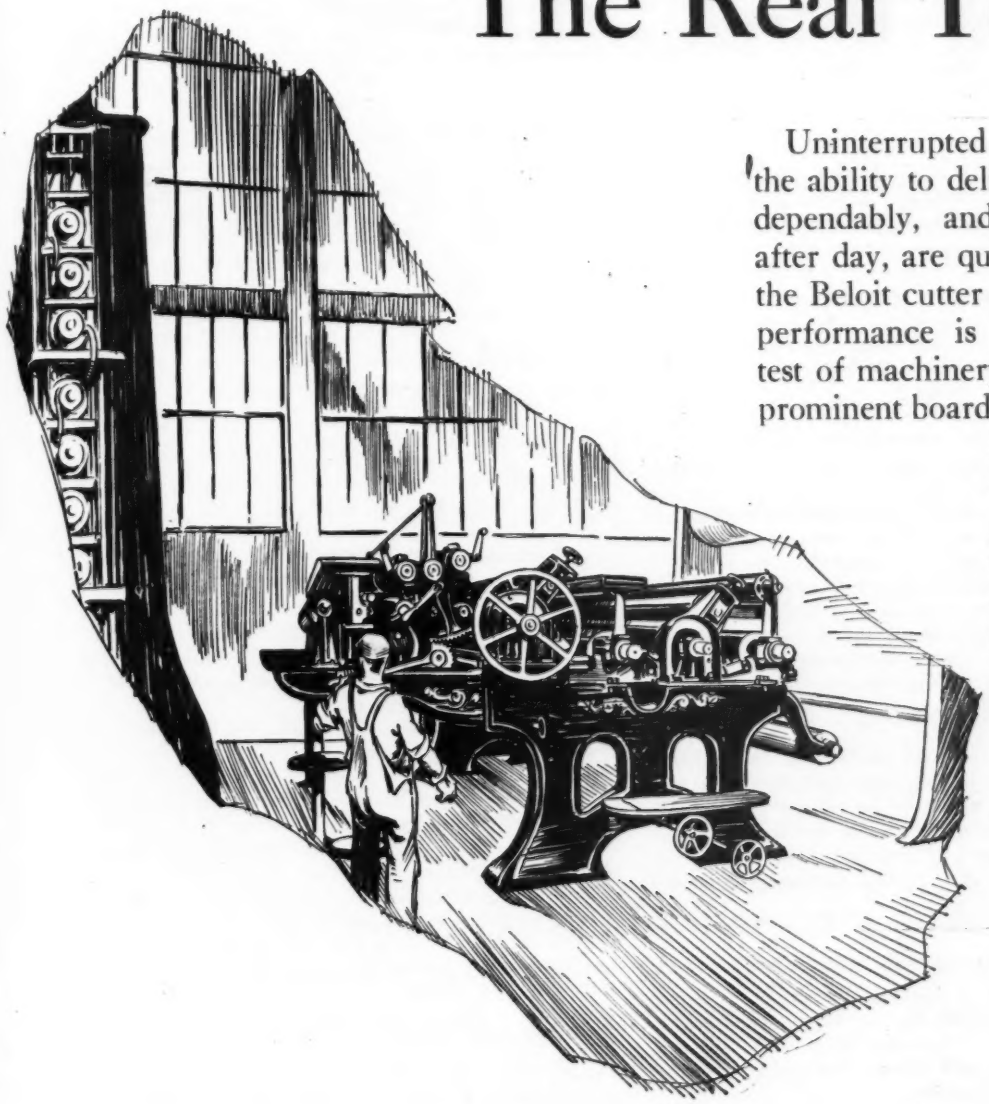
W. W. Snyder Box Plant Sold

[FROM OUR REGULAR CORRESPONDENT.]

COHOES, N. Y., August 18, 1924.—John Legget & Son, paper box manufacturers of Troy, Cohoes and Hudson, have purchased the business of the W. W. Snyder Box Manufacturing Company at 47 Oneida street, Cohoes. The property has been transferred. For the present there will be no changes made in the staff.

The box board plant of the Snyder concern on the East Side, Cohoes, is not included in the purchase.

Performance—
The Real Test



Uninterrupted performance — the ability to deliver consistently, dependably, and efficiently day after day, are qualities for which the Beloit cutter is noted. Steady performance is always the real test of machinery. The fact that prominent board mills insist upon and repeatedly order the Beloit cutter is proof of its ability to save time, labor and money.

If your "broke" losses are abnormal let Beloit mill engineers outline to you the unusual benefits of this superior cutter.

Write us today

Beloit Iron Works, Beloit, Wis., U.S.A.

Established Since 1858

Recent Incorporations

INTERNATIONAL ENVELOPE CORPORATION, Dover, Delaware; manufacture; capital, $100,000. U. S. Corporation Company.

MELLENVILLE PAPER COMPANY, Mellenville, Columbia County, New York; capital, $75,000. Incorporators: R. W. Moore, W. A. Weber. Attorney, L. Brockow, Albany, N. Y.

WAGNER FOLDING BOX CORPORATION, Buffalo, New York; capital, $25,000. Incorporators: A. Wagner, W. P. Stengel, J. G. Israel. Attorney, I. Stel, Buffalo.

L. BATTON, Manhattan, New York; paper mill supplies; capital, $30,000. Incorporators: S. Warshaw, W. M. Simon, J. J. Weinblatt. Attorney, M. M. Simon, 305 Broadway.

PRUDENTIAL COMPANY, INC., Newark, New Jersey; manufacture boxes. Incorporator: Louis Relles, Newark.

BLUE BIRD PAPER COMPANY, Manhattan, New York; capital, $10,000. Incorporators: C. Bisgard, S. Tabak, J. D. Delman. Attorney, O. L. Meyerson, 1476 Broadway.

Pulping Australian Hardwoods

MONTREAL, Que., August 18, 1924.—C. Hartlett, Canadian Trade Commission in Melbourne, writes that for some considerable time experiments have been proceeding in an endeavor to produce a good class of paper from Australian timbers, which are practically all of hardwood varieties. It has recently been announced by the Institute of Science and Industry, a Government bureau of research that as the result of recent experiments it has been demonstrated that pulp suitable for use in the manufacture of better-grade printing and book papers could be economically made from the abundant gumtrees or eucalyptus of Australia.

The process is briefly described as a modification of the sulphite process as used in Europe and American, and amongst other advantages showed (1) a 10 per cent increase in the amount of pulp obtainable by the "soda" process which had formerly been tried; (2) the cost of chemicals for cooking the wood and bleaching the pulp was considerably lower; (3) less fuel was required; and (4) an even better-colored pulp was obtained. The sulphur is said to be burnt, or the sulphite is roasted, to produce a gas that, when dissolved in lime water, forms an acid liquor in which the wood chips are roasted. Also common salt in the form of brine is decomposed by passing an electric current through it, and one of the products thus formed is a gas-chlorine, which is also dissolved in lime water, and thus is used for bleaching the cooked product.

As sulphite ores, lime and salt are abundant in Australia, and sulphur is now being wasted in very large quantities, where lead, zinc and other ores are being treated for the recovery of the metals, it is considered by the experts of the institute that the present line of research into pulp making will untimately lead to important developments in the building up of a stable paper-making industry in Australia.

Salesmen's Association Activities

The Salesmen's Association of the Paper Industry is not letting the summer interfere with its activities, for monthly meetings are being held by the New York, Chicago and Miami Valley Division, and the two former groups will resume their weekly Monday luncheon meetings early in September.

The Chicago division's outing in July was so successful that a second has been scheduled for September 16, like the first a combination of an outdoor sports carnival, and "A One Day Convention." The date has been set for September 16, and Robert B. Harbison who was chairman of the committee which made such a success of the first outing will have charge of the details for the September affair as well.

Meanwhile the New York division, of which Fred N. Countiss of the Martin Cantine Company is vice-president, is planning a mill trip of inspection and study of paper making in various types of mills for the latter part of September, depending on the convenience of the mills to be visited.

The Miami Valley division will have its next meeting September 12, at the Butler County Country Club, and a feature of these meetings is the monthly discussion of business conditions and trends, in general, financial conditions, and particularly the prospects for the paper industry based on general conditions, this discussion being given by Dr. E. O. Merchant of the Mead company. A round table is a medium for an exchange of information on business conditions, as is the case at New York and Chicago.

The summer has seen a considerable sentiment of optimism in the Salesmen's Association, and at a time when there is usually inactivity, several new members have been enrolled through the efforts of the membership committee representatives in the different districts.

Eddy Paper Corp. Employees Have Outing

[FROM OUR REGULAR CORRESPONDENT.]

THREE RIVERS, Mich., August 16, 1924.—Eddy Paper Corporation employees, families and friends to the number of fully 1,500 held their second annual picnic today at Fisher's Lake. Rain fell during the morning, but the skies cleared toward noon and the throng of picnickers treked lakeward and participated in a program of sports that occupied a good portion of the afternoon.

One of the features of this event was the big barbecue prepared by Chicago chefs and served to all. The company stands the expense of this feast as well as paying cash prizes and furnishing a band for the afternoon and an orchestra for the dance in the evening.

It was late tonight when the crowd broke up for the homeward journey. John Monahan was the chairman of the general committee on arrangements and details.

H. A. Moses Presents Bronze Monument

TICONDEROGA, N. Y., August 16, 1924.—A bronze monument commemorating the battles fought when Ticonderoga was the "warpath of the nations" was unveiled here today. The memorial, to be known as the Liberty Monument, is the gift of Horace A. Moses, president of the Strathmore Paper Company of Mittineague, Mass., a native of Ticonderoga.

The donor spoke briefly in presenting the monument, and it was unveiled by his daughter, Miss Madeline Moses. Frank Moses, a brother of the donor and a supervisor of the town, made the speech of acceptance. Other speakers were: Representative Allen T. Treadway, of the 1st District of Massachusetts who is a native of Ticonderoga; Frank V. Wickes, of Ticonderoga, and State Senator Mortimer Y. Ferris, of Ticonderoga.

For more than a year Charles Krek, New York sculptor, has been at work on the monument, which represents an allegorical figure typifying the birth of the nation. The monument stands in a commanding position near the entrance to Ticonderoga village, and is said to have cost $50,000.

To Get Customers' Views on Business

In an effort to determine what their customers think of the business situation at present, the Pilcher-Hamilton Company has just sent out a letter to all those who purchase from them asking for this opinion. When these replies come in they will be compiled into one report which will then be forwarded to the entire list of customers. In this way the company expects to learn at first hand what actual conditions prevail and incidentally, this information will be of great assistance in lining up business for the Fall.

Charles Walmsley & Co. (CANADA) LIMITED

Beating Its Own Record

"WALMSLEY-234" WIRE WIDTH NEWS PRINT PAPER MACHINE at Price Bros. and Co., Limited, Kenogami, Que., started in February, 1924.
On May fourteenth, it produced a record of 106.6 tons of standard news print in 24 hours. It now produces

109.9 TONS

"On June twenty-fifth last, No. 6 machine trimming 217½ inches, 32 pound basis weight newsprint, running at an average speed of 827 feet per minute, made an actual production of 109.9 tons, of a possible 114.5 tons (96.5% efficiency), losing six minutes for two breaks in the twenty-four hours."

Walmsley Paper Machines, are making records all over the world for the Economical Manufacture of Paper.

WORKS:
Longueuil, Que.

OFFICE:
Montreal, Que.

Editorial

Vol. LXXIX New York, August 21, 1924 No. 8
HENRY J. BERGER, Editor

WHAT IS NORMAL IN THE PAPER INDUSTRY?

The American Paper and Pulp Association is an endeavor to ascertain what are normal conditions in the paper industry which, especially in view of present conditions, is naturally a matter of more than ordinary interest, sent a letter recently to prominent paper manufacturrs in different sections of the country asking this question. Many interesting responses were obtained as may be observed from a composite of the answers received from more than forty paper manufacturers which is printed below:

Present conditions in the paper industry are not peculiar to the paper industry as contrasted with other great industries. The paper industry experiences the same ups and downs, and responds to the same economic trends as general business in the country. However, in some groups in the industry fluctuations are wider than in other groups. Some groups lag behind the changes taking place in the general situation; others at times anticipate these changes somewhat. Speaking broadly, however, the paper industry is experiencing today the same economic conditions as those existing in other national industries. The paper industry is generally in better condition than several of the other larger national industries.

Many manufacturers assert that conditions existing in the industry today are normal; others feel that it is practically out of the question to define normal condition. During the abnormal years, between 1914 and 1923, we seem to have lost some of the standards by which individual paper manufacturers were accustomed to gauge the activitives of their plants as contrasted with others in their line, the industry itself, or general business conditions as a whole. Other new industries look at the paper industry as an old and a rather conservative industry. This is to our advantage, and yet conservatism has not blinded the manufacturers to the meaning of service to those to whom they sell, and to those who consume their products.

In the abnormal years referred to there may have been some injudicious over-development which is now causing a tendency toward over-production, and the individual mills may have failed to consider the temporary effects of movements which have appeared as unique opportunities for expansion and profit. It is neither satisfactory nor safe to compare conditions today with the abnormal period of the war and after. It would appear that 1923 and the first half of 1924 were much more normal for this and other industries than any period since 1914.

Associations such as American Paper and Pulp and its affiliated associations are carrying forward their work aggressively, openly, and fairly. There may be some few associations whose activities, directly or indirectly, affect the control of prices, limitation of production, division of territory and suppression of competition. These activities are contrary to law. Such associations should be suppressed. It would appear that the new Attorney-General will co-operate on a satisfactory basis with the Department of Commerce to help clarify the situation as affecting trade association activities, and will enable us to serve the industry even more effectively than in the past. American Paper and Pulp has just put up to its members a statement as to its field of work. This statement indicates that the Association has a definite program which is being carried out on a moderate budget, and this in a way that means more effective co-operation with its affiliated groups.

Several manufacturers emphasized the fact that much of present day uncertainty and indecision is resulting from a single factor which may best be stated in the single word "fear." Today paper manufacturers and merchants seem to be forgetting some of the fundamentals which are indicated in the comprehensive statistics put out for the industry, and are allowing themselves to be controlled by certain uncertainties resulting from fear of what is ahead. Too many seem to be asking "What's the matter with the paper industry today"; "What is the trouble." Rumors seem to be creating conditions which can neither be substantiated nor justified. The industry as a whole is afraid of a situation which it does not understand, but which, "Heaven be praised," does not exist. Other manufacturers believe that the difficulties in the situation are mental rather than fundamental—that fundamentally the condition of the paper industry is sound; that we are as near normal, judged by present standards, as could be expected; that the tide of general business conditions is changing, and that generally speaking we are facing a return of reasonable prosperity.

Another factor which has a very decided effect on the present condition of the industry is the continued importation of low cost pulp and paper from foreign countries. Generally speaking, the present tariff law seems to be unsatisfactory as far as the paper industry is concerned. Some grades are receiving adequate protection, others little or no protection. Pulp, for example, is on the free list. The converters benefit by this and the pulp manufacturers suffer. The Association, representing all grades of the industry, made a strong presentation at the time the present tariff bill was under consideration. It placed in the hands of the Ways and Means and Finance Committees carefully prepared briefs for each branch of the industry, unified in a single brief for the whole industry. This statement showed the needs of the industry and pointed out the effect of low cost foreign products, and asked reasonable rates of protection. There were powerful agents presenting their case in Washington in opposition to our efforts. Some of the rates recommended by the Association were accepted, others were cut. Since then we have been making an aggressive fight to secure additional protection which was not obtained in the McCumber-Fordney bill.

An example of the continued fight is the effort which the Association has been making with a Committee from the Coated Paper Manufacturers to secure reduction in tariff on casein.

Because of the diversified interests in the industry, and because of the old conflict between the self-contained and the converting mill, in the matter of pulp, there is great need for a clearer understanding of the whole wood and pulp question, particularly of the effect of the gradual breaking down of an American pulp industry through foreign competition. In the long run it will be better for all phases of the industry if there can be maintained a reasonably satisfactory supply of American made pulp. Let the Canadians get the news print industry in the palm of their hands and see what the result will be upon the great consumers of news print in this

country. Let the Canadians and Scandinavian pulp manufacturers get control of the pulp industry of the world, and then see the effect upon those mills which are entirely dependent upon a supply of pulp from the outside.

Many of the manufacturers referred in their letters to the merchandising problem of the industry. Some made rather positive statements that we have not standardized merchandising procedure; that there is too much guesswork in the present methods of merchandising; that selling price in many instances is not correlated with the cost of production; that altogether there are too few facts as to the various elements of the merchandising program. Some manufacturers stated rather frankly that the selling end and the production end are not working in close harmony. If these conditions exist, and they would appear to exist through statements made by manufacturers, there is unusual opportunity for associations serving the industry. Some of the service bureaus working with separate groups are doing splendid work along merchandising lines. There are larger problems of distribution which must be correlated with transportation problems of the country, and with similar problems in other industries, and American Paper and Pulp is in position to give service in these larger problems.

The Association was approached during the past month by representatives of the Department of Commerce in the matter of a comprehensive study of distribution in the United States. Through this suggestion a group of representative manufacturers were invited to a conference called by Secretary Hoover for the week of June 23. There are numerous men in the industry who are as expert in matters of distribution as men in any other industry. We should be able to contribute effectively to the studies of distribution which Secretary Hoover has in mind.

A factor which influences the present situation, directly and indirectly, and which will continue in an increasingly aggravating way to influence the industry, is the diminishing supply of pulpwood. We consume annually something over six million cords of wood, of which approximately a million and a quarter are imported. The American Paper and Pulp Association has been hammering at this problem for the past four years and eventually hopes to drive home the fact that the raw material problem is after all the fundamental problem of the industry.

Here again the Association has been making strenuous efforts to secure the right kind of publicity, the right kind of legislation—federal and state—which will enable us to grow, economically and profitably, successive crops of pulpwood.

But little is known, after all, as to just what we may expect from our present forest areas in the way of a permanent supply of wood over a given period of years. Some of the uncertainty as to the immediate future of the industry is due to this uncertainty as to what we are to expect from our forests in the way of permanent supplies of wood—the paper industry will be permanent only as it is fortified by a known quantity of wood, which can be taken from forest lands under practical methods of management. A knowledge of what we may expect from our forest will let us determine exactly whether the country can afford to go further in the development of new mills for the manufacture of pulp and paper.

The paper industry in Scandinavia, particularly in Sweden, is considered to be permanent because it is known definitely just how much timber is available each year for the various mills, and this knowledge makes it possible for the Swedes to figure exactly as to whether they are over-building on the basis of available supplies of wood. Money which promises to be forced into channels of development in this country is constantly looking toward the paper industry. The industry, through the Association, should be in position to give very definite facts as to just what our present forest conditions justify in the way of development.

In summing up the situation, as outlined in letters from numerous manufacturers, it should be emphasized, in season and out, that the old law of supply and demand still holds, and that the tide will turn—is turning. We must come to the end of the recession which followed the advance made after the depression of 1921. Money is cheap. The labor situation is fairly satisfactory. Consumption on the part of the public continues, and will continue. There seems to be every reason to expect an increasing demand for paper in the fall and winter months, and we also have every reason to expect reasonable prosperity for the paper industry with returning demand. Those mills which have standardized their manufacturing and merchandising procedure, which base their selling price on the cost of production, and which are willing to co-operate with their associates and competitors, and are willing to co-operate in organized association activities, will have small occason to write in red during the coming months, in the opinion of many of those who wrote on the inquiry "What are Normal Conditions in the Paper Industry."

Coolidge and Dawes Watermarked Paper

The D. F. Peck Paper Company, of Chicago, under date of August 14 sent out the following letter on "Coolidge and Dawes" watermarked paper and is already beginning to receive orders by mail for the paper, apparently indicating a big demand:

"We are not familiar with YOUR political affiliations, but we have our own convictions, and are backing our judgment not only in a patriotic, but also a commercial way.

"We enclose you herewith samples of a new and distinctively watermarked paper. Examination will convince you that it is a beautiful Loft Dried Bond. It is watermarked COOLIDGE AND DAWES—U. S. A.

"Please do not think this will serve only until November 4th, 1924; it will be in demand until March, 1929, and by that time Dawes will have made the position of Vice-President so valuable we will have to vote him an assistant.

"We could write a book on the quality of the paper, and the qualifications of the principals, but, "Hell-en-Maria"—why waste valuable space and time when THIS is the time for quick action.

"Please write or wire, if interested, as we want you to handle this line, and can make prompt shipments from the Fox River mill, Appleton, Wis.

"We are sole owners of this watermark, and can offer you exclusive sale in your section, if volume warrants, and we sell jobbers only."

John A. Andrew Leaves Stone & Andrew, Inc.

Boston, Mass., August 19, 1923.—Announcement has just been made by John A. Andrew that he has severed his connection with Stone & Andrew, Inc., of which concern he was one of the founders and of which for the past several years he has been president. Mr. Andrew has transferred his controlling interest in the Company to Mr. Brodlee.

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Section of the
Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

A STUDY OF REFRACTORY MATERIALS FOR SULPHATE SMELTING FURNACES

Abstracts of Thesis in Part Fulfilment of the Requirements for the Degree of Bachelor of Science in Chemical Engineering, University of Pittsburgh

By William McC. Walker

Purpose

The use of refractory linings in the various equipment units of paper pulp manufacturing plants is comparatively recent. Therefore, the use of fire-clay or other refractory materials as linings in such apparatus as the recovery furnaces* is still largely in the experimental stage.

It is the purpose of this thesis to undertake a study of the materials best suited for their use and to determine the properties or characteristics which the materials studied should possess, in order to be successfully used.

In a previous work on the action of molten slag upon refractories it has been demonstrated that the action is the resultant of two tendencies—penetration and solution. Tests have been made, based upon the principle that slags react with refractories forming mixtures or compounds with lower fusion points than that of the pure refractory. In experiments carried out on fusion points of iron oxide—feldspar mixtures, the theory of eutestic mixtures has also been advanced. In this latter case it was stated that maximum points on the fusion point curves correspond to compounds and minimum points to eutectic mixtures.

The tests on the black ash, which are described, are based on the same idea, namely that the black ash reacted with the refractory with which it was mixed, to form compounds having lower melting points than those of the pure refractories. The actual fusion point of a refractory material gives an idea of the limit of safety for its use. The fusion point of the refractory when in contact with the ash must therefore give some indication of the effect of the ash under practical conditions.

The resistance of various refractory materials to the action of the black liquor was also studied so as to determine their relative values for use in the digesters of a pulp mill.

Method of Procedure

A five-pound sample of black ash was obtained from a paper mill. This black ash was the same as that which is charged into the smelting furnaces. This was ground, quartered and a uniform sample taken for determination of the alkali content.

*See Manufacture of Sulphate Pulp, Section 6, Vol. III. Manufacture of Pulp and Paper, Editor's Note.

A gravimetric determination of the total alkali content was made, according to the J. Lawrence Smith method. The result of this determination was 32.6 per cent alkali (N_2O+K_2O).

A sample of each of the following refractory brick was obtained: Magnesite, chrome, soapstone, silica, diaspar and five kinds of first quality fireclay brick. These were each reduced to the same state of subdivision. A typical screen analysis made on these was as follows:

80 to 100 mesh	38.0%
100 to 120 mesh	13.5
120 to 140 mesh	4.5
140 to 160 mesh	4.5
160 to 180 mesh	8.0
Through 180 mesh	31.5
Total	100.0%

Batches were then made that contained 5, 10, 15, 20, 30, 40, and 50 per cent. of the black ash mixed with the refractory materials. These batches were made into test cones. The fusion point of each cone was then determined and the results recorded.

The fusion points were determined according to the specifications of the A. S. T. M. method (C 24-20). It was found necessary, in making these determinations, to set the clay, silica, and standard Orton cones in fire-clay pats. The magnesite cones, and chrome cones were set in chrome pats. This necessity arose from the fact that the magnesite and chrome reacted with the fire-clay base and gave results which were from 2 to 16 cones too low. The melting points of standard Orton cones is given in degrees Centigrade and Fahrenheit in another portion of this paper.

The fusion points of each refractory-black ash mixture are also given. Table 3.

The porosity of each brick was also determined. The method used in determining porosity is that recommended by the American Ceramic Society, and is as follows:

Test pieces of approximately 30 grains of each brick are broken and the dry weight of each piece obtained. The pieces are then boiled in water in a closed vessel under vacuum for one hour. The vessel is then allowed to cool and the weight of each piece suspended in water, and its weight saturated with water obtained. The percentage porosity is then calculated according to the following formula:

$$\text{Porosity } \% = \frac{\text{Saturated wt.} - \text{dry wt.}}{\text{Saturated wt.} - \text{suspended wt.}} \times 100$$

Analyses were made on each of the refractory materials used. The results of these analyses are tabulated. (Table 1.)

TABLE 1—ANALYSIS OF REFRACTORY MATERIALS

Noture of Brick	Chrome	Magnesite	Fireclay A	Diaspore B	Fireclay C	Diaspore A	Silica	Fireclay B
Silica	12.94	7.80	50.98	47.94	80.06	30.98	96.58	57.12
Alumina	23.17	2.42	43.94	47.13	18.30	63.20	0.74	38.01
Ferric oxide	13.45	3.62	3.16	1.20	0.88	2.62	0.50	1.94
Titania	0.00	0.00	....	2.15	1.34	3.32	....	1.97
Lime	0.07	3.86	0.36	0.73	0.20	0.21	1.88	0.44
Magnesia	8.95	82.40	0.52	0.11	0.07	trace	0.16	0.50
Alkalies	0.03	trace	1.32	1.23	trace	0.46	0.21	0.16
Chromic oxide	41.24	....	....	....	....	....	....	....
Total	99.85	100.10	100.28	100.49	100.85	100.79	100.07	100.14

TABLE 2—MELTING POINTS OF ORTON STANDARD PYROMETRIC CONES

(U. S. Bureau of Standards)

Orton Cone No.	Melting Point °C.	Melting Point °F.
4	1,210	2,210
5	1,230	2,246
6	1,250	2,282
7	1,270	2,318
8	1,290	2,354
9	1,310	2,390
10	1,330	2,426
11	1,350	2,462
12	1,370	2,498
13	1,390	2,534
14	1,410	2,570
15	1,430	2,606
16	1,450	2,642
17	1,470	2,678
18	1,490	2,714
19	1,510	2,750
20	1,530	2,786
26	1,600	2,912
27	1,620	2,948
28	1,635	2,975
29	1,650	3,002
30	1,670	3,038
31	1,685	3,065
32	1,705	3,101
33	1,720	3,128
34	1,740	3,164

TABLE 3—FUSION POINTS OF REFRACTORY—ASH MIXTURES

Laboratory designation—	Percentage of Ash in Mixture 0	5	10	15	20	30	40	Porosity %
Chrome	38	38	38	37	37	34	34	25
Magnesite	37	37	37	36	35	32	..	18
Fireclay A	32½	31½	30½	20	13	5½	..	17.95
Fireclay B	32½	31½	30	19	15	4½	..	20.1
Fireclay C	28	20-26	20	13	5	2	..	21.8
Diaspore A	36	34½	26½	17	10	6	..	34.0
Diaspore B	33½	32½	30	20-26	13	5	..	26.0
Hydr. brick	16	..	..	..	..	..	..	8.0
Soapstone	12-14	..	..	..	..	..	..	4.3
Silica	31½	28	20-26	13	11	5	..	25.8

Alkali content of ash = 32.6%

Discussion of Results

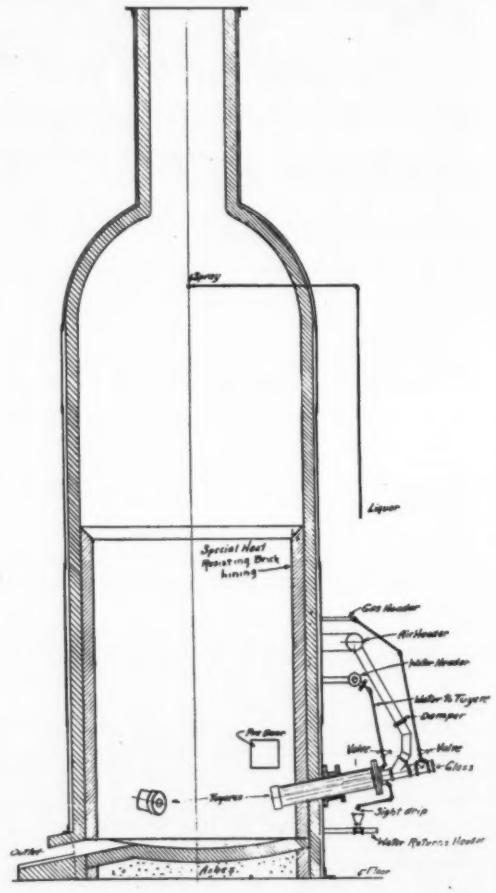
The data obtained in the fusion tests were plotted in several ways in order to simplify their study.

These curves are shown on Figs. 1, 2, 3, and 4. Fig. 1 shows the behavior of each individual brick against the action of the black ash; Fig. 2, the behavior against alumina content; Fig. 3, the behavior against silica content and Fig. 4 the behavior against iron oxide content.

The fusion points of each brick were taken as ordinates and the percentages of black ash, alumina, silica and ferric oxide respectively as the abscissæ in the four figures. The points representing equal ash concentrations were then connected.

On examination of Fig. 1 it will be seen that the chrome and magnesite refractories are but slightly affected even at a concentration of 30 per cent. of ash. This may be taken as evidence of satisfactory use in the recovery furnaces, as the fusion point of a refractory gives an idea of the limit of safety in actual use. The high cost of chrome brick or magnesite brick would be offset by their serviceability. For while one or two of the fireclay brick showed some resistance to the action of the ash, increasing concentrations of the ash show a very great depressing effect on the fusion points. In contrast to this the chrome and magnesite brick showed fusion points far above the operating temperatures of the recovery furnace.

It may be assumed that those bricks having the highest fusion points in the pure state (100%) stood up the best against the influence of the ash. This is not absolutely true, however, as the curves will indicate. Diaspore B and Fireclay A showed high resistance up to 10 per cent concentration, from which point increasing concentration caused a great depression of the melting points. In these two refractories which show a fairly uniform behavior, an increase of from 10 per cent. to 20 per cent of the ash, lowered the fusion point 16 cones or 290° C.



JAITE FURNACE FOR RECOVERY OF CHEMICALS IN WASTE LIQUOR

Silica brick shows a fairly uniform curve, but with 10 per cent concentration of ash fuses at the operating temperature of the furnace.

Fireclay C shows a very unsatisfactory performance.

Diaspore A while a highly refractory brick shows too rapid a drop in the fusion curve.

In summing up the behavior of the five brick other than chrome and magnesite, Diaspore B and Fireclay A show the more satisfactory service.

In the recovery furnace, of which a diagram is shown, the black liquor is sprayed into the furnace. Therefore, some absorption of the liquor must take place in the brick lining. The porosities of the brick studied show from 17.95 per cent to 34 per

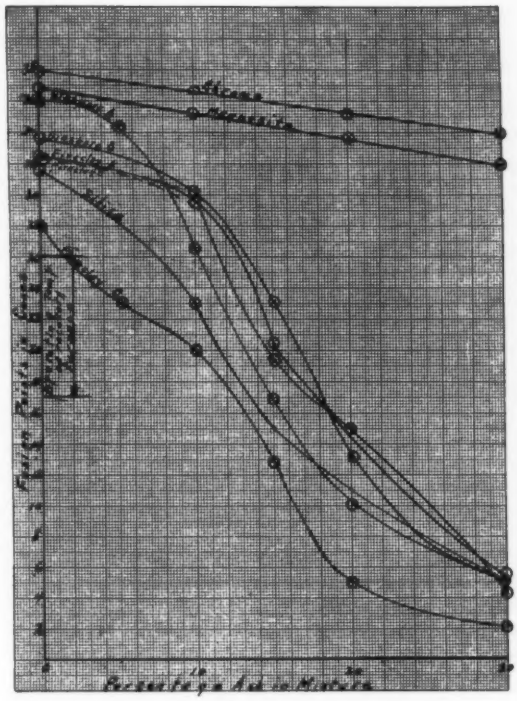


FIG. 1

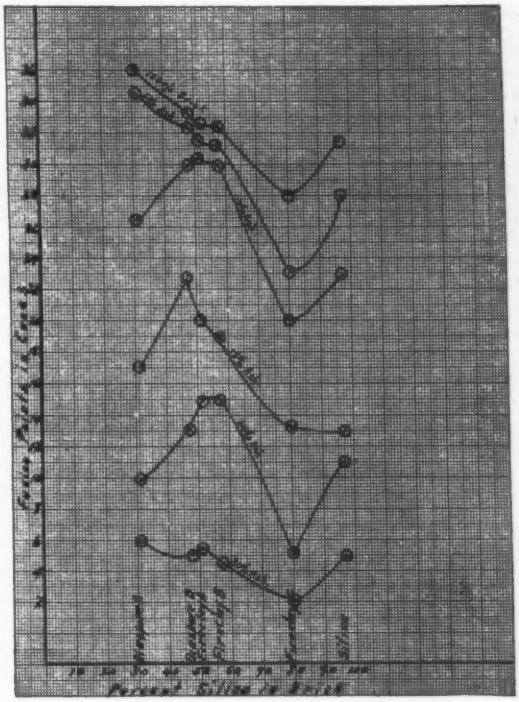


FIG. 3

cent porosity. While these concentrations of the liquor will probably not be absorbed by the hot brick lining of the furnace, a high absorption must necessarily take place, especially after repeated operation of the furnace. As from 10 to 15 per cent concentration with the different fireclay and silica brick, causes too low fusion points for practical operation it would be doubtful if these brick would endure for any great length of time. Any liquor absorbed will be evaporated, leaving behind the residue of ash to react with the brick.

As the chrome and magnesite brick show only 25 per cent to

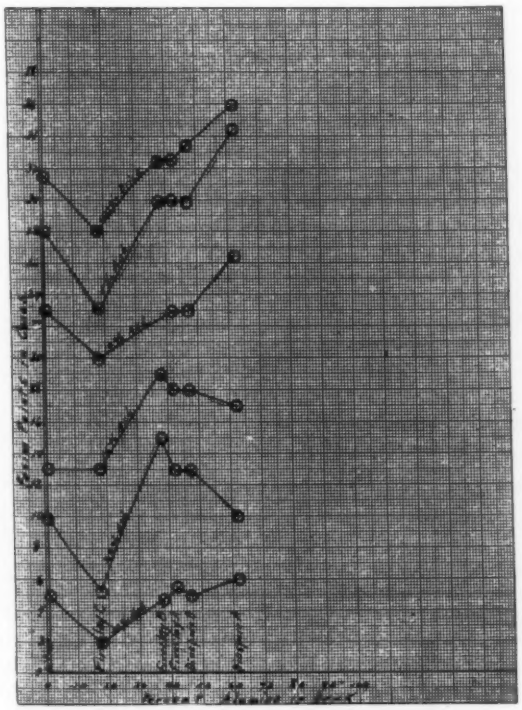


FIG. 2

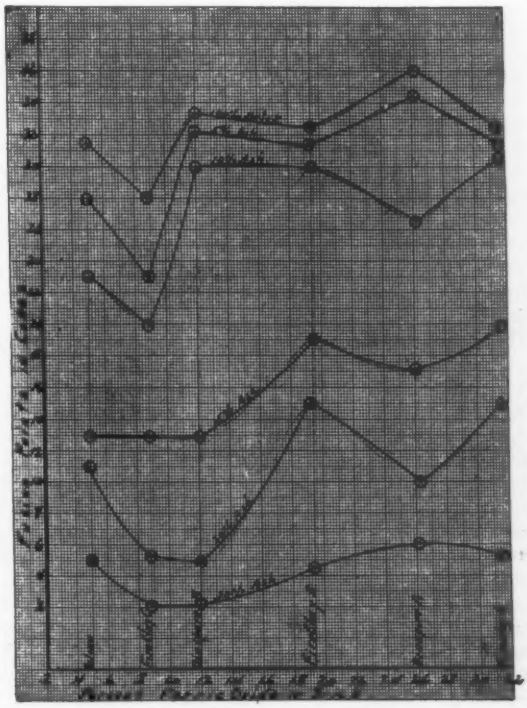


FIG. 4

22 per cent porosity, respectively, satisfactory operation might be expected even with saturation of the pores, since 25 per cent concentration of the ash did not affect the fusion point to any marked degree.

In studying the composition of the refractories used, little can be ascertained as to the determining factor of resistance to the ash. High silica content did not show the depressing effect which was expected. Increasing alumina content did not show a uniform effect. High iron content apparently had only a slight effect as to behavior against the action of the ash.

In the higher concentrations of the black ash, i.e., 20, 30 and 40 per cent., it must be borne in mind that the volume of black ash is large in comparison with that of the refractory material. Hence it follows that in the cones used, that after the ash had volatilized, the structure of the resulting cone would be changed. This would tend to leave it much less resistant to the action of high temperature. For this reason the low fusion points of the higher concentrations should not be regarded as entirely due to chemical action of the ash.

It is evident that a densely burned brick which would give minimum absorption would be best in actual service. Physical structure of a brick may also be a factor to be considered. An attempt was made to determine the comparative resistance of flint clay to the ash, with plastic clay to the ash. This was thought of because of the difference in microscopic structure of the grains of flint clay to those of plastic clay. The results of these tests, however, were unsatisfactory.

Design of furnaces should be considered in the manufacture of brick for the linings. It is evident that brick cut to shape will not be affected by abrasive action as would the ordinary rectangular 9-in. fire brick. In the latter, there would be a projecting edge at each brick joint.

In comparing the suitability of soapstone and of a densely burned building brick for use in lining the digesters, it was found that either one would be satisfactory as to resistance to the action of the black liquor. The soapstone fused at cone 14 while the building brick (a hydraulic press brick, which was densely burned) fused at cone 16. As high temperatures are not used in the digesters, these brick would be satisfactory from a refractory viewpoint.

After boiling up the soapstone and the building brick with the black liquor, the soapstone lost 0.02 per cent, while the other brick showed no loss in weight.

The porosity of the building brick was 8 per cent, and that of the soapstone four and three-tenths per cent.

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WATER POWER IN THE PULP AND PAPER INDUSTRY OF CANADA*

Pulp and paper manufacturing is a typical and important Canadian industry with a prosperous future, the result of two natural advantages,—abundant supply of growing pulpwood and cheap accessible motive power in large quantities. The importance of low cost power lies in the fact that it takes practically 100 horsepower to produce one ton of paper per day. It is not surprising therefore that motive power used in this industry is almost altogether restricted to hydraulic energy and that Canada's premier advantage and position in the pulp and paper field rests on adequate and abundant water power well distributed among extensive timbered areas.

Water power is operating 121 pulp and paper mills in Canada, 726,375 horsepower being employed. Of this total 497,620 horsepower is *actually installed* in connection with the mills and 228,755 horsepower is *purchased* from hydro-electric central stations. (See table.)

The innovation of the electric drive is having a marked and favorable influence on pulp and paper manufacturing processes. It makes possible the centralized operation of fewer and larger mills receiving power from several power sites together with the further advantage of uniform speed and better control in grinding, thus lessening costs of operation, construction and shipping. Of the 497,620 horsepower *actually installed* in pulp and paper mills, approximately 210,000 is used in the electric drive, besides which there is 228,755 horsepower of hydro-electric energy purchased from central stations, bringing the total horsepower employed in the electric drive up to approximately 439,000.

Quebec and Ontario possess the largest natural pulpwood areas in Canada and they lead in pulp and paper production with 368,352 horsepower utilized in this industry in Quebec and 271,174 horsepower in Ontario; other producing provinces are, British Columbia 55,140 horsepower, New Brunswick 14,378 horsepower and Nova Scotia 17,331 horsepower; total installation for pulp and paper mills, 726,375 horsepower.

British Columbia

Three companies operate six mills in British Columbia with a total water power installation of 55,140 horsepower. The Pacific Mills of Vancouver has two mills, the largest on the Link river at Ocean Falls where, under a head of 140 feet, 26,850 horsepower is installed. The Whalen Pulp and Paper Mills, Limited, has three mills; the first at Woodfibre draws water from Mill creek under a

DEVELOPED WATER POWER IN CANADA UTILIZED IN THE PULP AND PAPER INDUSTRY

February 1, 1924.

Province	No. of Mills	Installed and Purchased Power in Horsepower: Turbine Installation in the Industry: Direct Drive	Hydro-Electric Drive	Total	Purchased Hydro-Electric Power	Total Hydro-Elec., Col. 4 + Col. 6	Total Utilized in the Industry, Col. 5 + Col. 6
1	2	3	4	5	6	7	8
British Columbia	5	26,790	28,350	55,140	.....	28,350	55,140
Ontario	46	89,066	85,123	174,189	96,985	182,108	271,174
Quebec	56	151,792	85,440	237,232	131,120	216,560	368,352
New Brunswick..	4	2,668	11,060	13,728	650	11,710	14,378
Nova Scotia.....	10	17,251	80	17,331	.....	80	17,331
Canada	121	287,567	210,053	497,620	228,755	438,808	726,375

Column 3 includes all turbines actually installed in the industry and directly driving mill equipment.
Column 4 includes all turbines actually installed in the industry and transmitting power through *electric drive*.
Column 5 totals the turbine capacity actually installed in the industry.
Column 6 includes only power purchased from hydro-electric central stations for the operation of pulp and paper mills.
Column 7 totals the hydro-electric power used in the industry.
Column 8 totals the water power used in the industry.

*Abstracted from "Water Powers of Canada," by J. B. Challies, Director and Chief Engineer, Water Power and Reclamation Service, Department of the Interior, Ottawa, in *Engineering Journal*, July, 1924.

580 foot head and from Cedar creek under 1,100 foot head and develops 2,240 horsepower; the second near Swanson Bay where an installation of 1,750 horsepower draws water under a head of 130 feet from Swanson creek; and the third mill at Port Alice has a 300 horsepower installation. The third pulp and paper company is the Powell River Company, Limited, which has a 24,000 horsepower installation operating under a head of 147 feet on the Powell river.

Ontario

There are forty-six pulp and paper mills in Ontario using water power to the extent of 271,000 horsepower, of which 174,000 horsepower is produced by the industry and the remainder purchased; of the power produced 90,000 horsepower is used in the direct drive of machinery and the remainder hydro-electrically. The principal power developments are those of J. R. Booth on the Ottawa river at Ottawa, 29,000 horsepower; Minnesota and Ontario Paper Company on the Rainy river at Fort Frances, 8,580 horsepower, while they also purchase 1,800 horsepower from an allied company; Backus-Brooks Company at the outlet of the Lake of the Woods at Kenora, 8,600 horsepower; the Spanish River Pulp and Paper Mills, 14,400 horsepower on the St. Mary's river at Sault Ste. Marie, 15,820 horsepower on the Spanish river at Espanola, 5,200 horsepower at Smoky Falls and 13,390 horsepower at Sturgeon Falls on the Sturgeon river; the Abitibi Power and Paper Company, Limited, 28,000 horsepower at Iroquois Falls and 24,000 horsepower at Twin Falls on the Abitibi river; other important pulp and paper developments have been made on the Mattagami and Kapuskasing rivers.

Quebec

In addition to the central station industry, water power to the extent of 368,000 horsepower is used in fifty-six pulp and paper mills in Quebec and 237,000 horsepower of this is developed purely for these mills. Amongst these may be mentioned 14,000 horsepower on the Ottawa at Hull; 6,900 on the Lievre at Buckingham; plants on the St. Francis river, aggregating 26,000 horsepower; on the Jacques Cartier, 8,500 horsepower; on the Chicoutimi and Ouiatchouan 28,000 horsepower; on the Au Sable and Shipshaw rivers, 59,000 horsepower; in addition to these lower down on the gulf of the St. Lawrence there is a 11,000 horsepower development on the Marguerite river and 5,600 horsepower on the Madeleine. These are in addition to the mills at Shawinigan and Grand' Mere and to a very extensive development now being constructed on the Saguenay near the outlet of Lake St. John.

New Brunswick

The water power resources of New Brunswick are estimated at 50,000 horsepower minimum and 120,000 horsepower for six months, but stream flow regulation will, it is thought, make it possible to develop 200,000 horsepower which will be economic for commercial use. Of this, however, 20 per cent has already been developed.

The principal power site in New Brunswick is at Grand Falls of 130 feet on the St. John river where 22,500 horsepower minimum and 59,000 horsepower with storage is available. Other sites are to be found on the St. Croix river, which is an international boundary stream, the Lepreaux, Magagaudavic, Musquash, Nepisiguit and Miramichi rivers.

The developed water powers of New Brunswick total 42,000 horsepower, a considerable proportion of which are comprised in small sites developed for local requirements of pioneer communities in saw and grist mills. The principal developments producing power for general distribution are the Musquash development of the New Brunswick Electric Power Commission with an installation of 11,100 horsepower, the Aroostook Falls development of the Maine and New Brunswick Electric Power Company 8,800 horsepower and the St. Croix river development of 1,135 horsepower, owned by the Maritime Electric Company at St. Stephen. The pulp and paper industry has four mills and 14,000 horsepower developed, the two largest being those of the Bathurst Company at Grand Falls on the Nepisiguit, where 9,000 horsepower is installed.

Nova Scotia

The pulp and paper industry is responsible for the development of 17,000 horsepower in ten plants, of which the largest are those of the MacLeod Pulp and Paper Company on the Mersey river at Liverpool, two in number, aggregating 6,000 horsepower. Other considerable developments devoted to the pulp industry are to be found on the Sissiboo river at Weymouth, the Clyde at Port Clyde, two on the Medway and one on the Gaspereau and another on the St. Croix at Windsor.

Sizing and Temperature

Secretary Technical Association:—

Your articles in the current issues of PAPER TRADE JOURNAL in connection with the effect of temperature on rosin sizing and also the results of regulated drying conditions on the paper machine, are of special interest to the writer, particularly because of very recent experiences with almost identical problems under widely different conditions.

It is quite generally recognized that the rosin sizing operation is a critical one. Since it represents one of the most important chemical processes in the paper mill it is worthy of serious study. The publication of your correspondent's data on this subject should be of definite value.

Even though little care is used in standardizing the methods of diluting the rosin size it has been demonstrated many times that temperatures over 150 degrees F. will not always injure rosin sizing, but if the time of contact in the beater, chest or jordan is prolonged and the pressure is high or the agitation violent, serious injury may result. In many mills high temperatures are necessary in order to accelerate the disintegration of fiber bundles so that sizing is often improved by adding the size while dropping the beater, following with alum. The alum ratio becomes more critical under these conditions and often results will be improved by watching this factor. However it has been demonstrated repeatedly that a properly diluted size can be subjected to high stock temperatures for a considerable period with resultant good sizing, although particular care must be taken to compensate for the effect of hard water or variable white waters, stock variables and beater treatment.

On the paper machine the problem is somewhat different in that the effect of variations in water and stock have already had their effect and for a portion of the time only are dealing with the fibers in an aqueous medium. Tucker's "hydrolysis" seems clearer to me when expressed in terms of the rate of dehydration of the resinate of alumina precipitate. The flocculent precipitate owes a large part of its success as a sizing material to its property of tenaciously holding a very large volume of water to itself and if this condition is too violently disturbed by rapid drying a granular condition results which has less sizing value. This rate of drying and the moisture conditions accompanying it were responsible in a recent test for variations as great as 100 per cent. under conditions of stock, beating, jordaning and water supply which were as nearly identical as possible to determine. It is quite well recognized, however, that if all of the factors which influence the character of the size precipitate and the methods of applying the size to the stock are well coordinated, the effect of improper drying on the machine may be mitigated to a great extent.

E. B. Eddy Co. Buys Three Taylor Stokers

The E. B. Eddy Company, Limited, of Hull, Quebec, has purchased as part of its equipment for its new boiler house, three 9-retort type "H" Taylor stokers. These stokers are manufactured by the American Engineering Company, Philadelphia.

TECHNICAL SECTION, PAGE 72

RELATIVE HUMIDITY AND PAPER TESTING

By F. A. Curtis, Chairman of the Paper Testing Committee of the Technical Association of the Pulp and Paper Industry

There has been considerable interest developed in the last year or so, in regard to the effect of relative humidity upon paper testing, and the Paper Testing Committee of the Technical Association has been requested by a few organizations to investigate this matter. For this reason, a careful study is being made of the problem and from time to time reports will be available.

A preliminary survey of the field indicates that a change from 65 per cent relative humidity is not desirable until further data are available. For this reason the committee definitely recommends that until this further information is available, the present standard of 65 per cent relative humidity at 70 degrees temperature be maintained. The paper following by F. A. Curtis, chairman of the Paper Testing Committee of the Technical Association of the Pulp and Paper Industry, is in connection with this subject.

Introduction

It is common knowledge that the amount of moisture in paper has decided effects upon various physical qualities of paper. This is so true that in certain converting processes, elaborate methods are maintained for properly conditioning the paper before use. The moisture in paper is either that present as the paper came from the paper machine or that which has been absorbed from the air. The amount of moisture in the air is constantly varying but may readily be measured as the relative humidity.

Air at different temperatures has the property of holding different amounts of moisture; but at any one temperature, air can hold only a certain maximum amount without precipitation. The percentage of that maximum amount of moisture at the temperature in question is known as the relative humidity. Relative humidity is the ratio of the actual quantity of moisture in the air to the quantity that would saturate it under identical conditions as to pressure and temperature. For example, at 70 degrees temperature and 65 per cent relative humidity, there is present only 65 per cent of the moisture in the air that could be present at 70 degrees temperature without precipitation.

During the past ten years, there has been an increasing interest in the question of paper testing and considerable progress has been made in the technique of measuring the physical qualities of paper. This increasing interest is due to two conditions—first, the desire of the manufacturer to know his product and to maintain standards, and secondly, the assurance to the consumer that he is buying the paper best suited to his needs. But paper testing, at its best, is but an honest attempt to determine in the laboratory, quickly and accurately, the value of a paper for a particular use—that is, to reproduce the conditions to which paper is exposed—service conditions.

Present Conditions of Paper Testing

Although the effect of relative humidity is well known, there are only a relatively few manufacturers or users of paper that take it into serious consideration. The number of mill or testing laboratories, large or small, that are equipped to maintain any definite relative humidity is quite small and, with few exceptions, the standard atmospheric conditions which is maintained is 65 per cent relative humidity. This condition was not determined for this country as a result of careful technical research, but is the same as that used in Germany and England, where considerable attention has been given to the subject. The relative humidity of 65 per cent is also the standard condition for testing textiles and is practically the same as the average outdoor relative humidity of this country. Certain technical considerations also seem to warrant its use.

Suggested Change of Conditions

About two years ago, the Government Printing Office established a paper testing laboratory in order to maintain a close check upon deliveries of paper and apparatus was installed to maintain uniform atmospheric conditions. Due to the belief that 50 per cent relative humidity was more nearly the average indoor relative humidity and that paper should be tested under conditions representing indoor rather than outdoor humidities, this relative humidity of 50 per cent was adopted as standard for that office.

Naturally, the action of any large buyer of paper, as the Government Printing Office, with the necessary publicity given its actions, and the purchase of paper under specifications of physical qualities that are affected by relative humidity changes, produced considerable discussion as to the desirability of changing from the present standard—from 65 per cent to 50 per cent relative humidity—in this country. The subject was of sufficient importance to have been discussed for over two hours at the Sectional Meeting on Paper Testing, held at the time of the T. A. P. P. I. Convention last April in New York. At that meeting, the Paper Testing Committee was asked to proceed in an investigation of this subject, according to the following resolution:

"That the Technical Association, during the next year, attempt to make determination of the percentage variables and the effects of testing paper at 50 and 65 per cent relative humidity, and others, if it seems advisable."

As the results of individual statements showed, the Sectional Meeting, with one or two exceptions, was unanimous in withholding judgment as to the advisability of any change in the standard until further data were available.

At a meeting held in Washington in June of this year, the Advisory Committee of the A. P. P. A. for the Paper Section of the Bureau of Standards specifically requested the Paper Testing Committee of the T. A. P. P. I. to continue its investigation of this subject, and report as soon as possible, in co-operation with the Bureau of Standards. A sub-committee of the Paper Testing Committee has therefore developed a program and is planning to have a report available for the annual meeting next February.

Service Conditions

As previously stated, paper is tested for two purposes—by the manufacturer to maintain uniformity and by the user to determine whether a particular sheet will have the proper qualities for the use intended. With practically only one exception, almost any relative humidity, within reasonable limits, would be suitable to the manufacturer. To the user, however, this is not so, for paper is used under varying conditions. Since there are many types of paper, it is quite obvious that the conditions under which most paper is used, should be adopted as standard. It certainly is not feasible to have different standards. Therefore, laboratories should maintain, as standard, that relative humidity which approximates to the needs of the majority of the users.

Statistics of production of various classes of paper appear in the *Paper and Pulp Industry* for February 15, 1923, which are as follows: News, book, board, wrapping, fine, tissue, hanging, felts and others, all others. The first five classes are of importance in connection with this subject. The most commonly used atmospheric conditions for these classes are as follows:

1. News Print. Present-day practice is tending toward higher moisture content in news print. Attempts are being made to maintain a moisture content of 7 per cent or higher, and in some cases, the press rooms are artificially humidified to maintain this desirable working condition. Published data indicate that most paper, tested at 65 per cent relative humidity, contains 7 to 7½ per cent of moisture.

2. Book Paper. Strength requirements of book paper, except in the case of the high grades, are only sufficient to carry the paper

over the presses and to resist the folding and binding operations. For offset work, for good binding and for large scale production of printing, the atmospheric conditions in many plants are being modified artificially to produce the more favorable higher relative humidities. Competitive conditions of printing require cheap paper and the most favorable conditions for converting the paper are therefore necessary. Practical experience in the larger plants indicates the need of higher relative humidity conditions.

3. BOARD. The initial strain upon boxboard is at the time of the converting process when the box is formed. Better boxes are made when the board carries the higher moisture content; that is, the board folds and forms better under these conditions. Data are not available as to present atmospheric conditions in box factories, but a considerable portion of the life of a box in service is exposed to outdoor relative humidity conditions, which, of course, average about 65 per cent.

4. WRAPPING PAPER. As the name implies, the chief function of wrapping paper is as a protection to various commodities. And even a casual observation indicates that practically all wrapping paper is under the greatest strain when exposed to outdoor relative humidity conditions.

5. FINE PAPERS. The statistics of production for the years 1919-1922, as referred to above, indicate that for these four years fine papers represented only 5.14 per cent of the total production. Unpublished data indicate that rag-content bond and writing papers, as well as sulphite papers, can be graded at either 50 or 65 per cent relative humidity, except possibly in medium grade rag-content papers that are tub sized.

This grading includes the various physical testing instruments now used, as Mullen, tensile, tear and folding machines. The results obtained on all instruments, the folding machine, and possibly the tearing test excepted, tend to show a higher test at 50 per cent relative humidity than at 65 per cent. The tests on the folding machine at 50 per cent more truly indicate the folding quality of the fiber, especially in the case of glue tub-sized papers. Thus for probably less than 2 per cent of the paper produced is the lower condition of 50 per cent relative humidity desirable. It is at present still questionable whether the folding machine should be taken as the ultimate criterion for changing the test conditions. The accuracy of the folding machine, varying from 20 to 30 per cent, is the big objection to using the folding test as the standard for grading. Other physical tests, taken together, give as valuable information and the results are not, certainly, so erratic as in the case of the folding test.

Effect of Humidity Upon Paper

There are sufficient published data to warrant certain general conclusions as to the effect of humidity upon paper. These conclusions do not hold for all kinds of paper and are not to be relied upon for factors in specific cases. The following quotation from an article appearing in the PAPER TRADE JOURNAL for April 13, 1923, and being published by the Bureau of Standards, gives a general idea of the effect of humidity upon paper:

Moisture content increases (at varying rates) with increase of relative humidity.

Ream weight and thickness behave in a manner similar to moisture content.

Expansion and contraction with humidity variation is greater in the cross than in the machine direction and the magnitude of the effect depends on the grade of paper.

Tensile breaking strength and bursting strength increase up to the range of 35 to 45 per cent relative humidity and decrease above this range. The amount of change depends on the kind of paper. The per cent change for breaking strength is practically the same for machine and cross directions.

Elongation increases continuously with the moisture content.

Folding endurance increases over the observed humidity range. There is little concordance of results in machine and cross directions. The variations from one grade of paper to another are most marked.

Tearing strength increases with relative humidity over practically the entire range of ordinary humidity changes and its behavior depends on the kind of paper tested.

Of the strength qualities considered, bursting strength is least affected by humidity changes. Breaking strength and tearing resistance assume an intermediate position, while folding endurance is influenced most.

These conclusions, based on accurate data, and similar summaries of data from other sources, indicate that the effect on the Mullen test is relatively small, while in the case of the folding test, it is not only high but also quite erratic. Furthermore, an allowance of from 20 to 30 per cent should be allowed on all folding test results, due to the variations between different machines and results on the same machine.

Program of Investigation

A definite program of research and investigation has been adopted by the Paper Testing Committee, which consists essentially in the collection of data to be used—first, in determining whether it will be feasible to change from 65 to 50 per cent relative humidity, and secondly, in presenting a final report of all available information and a definite recommendation to the Technical Association.

Tentative Recommendation

It is definitely recommended that, until further data and information are available, that no change be made from 65 per cent relative humidity as the standard atmospheric condition for the testing of paper in this country. Further data are being collected as rapidly as possible and all phases of the subject are to be investigated. But at this time, it is not believed that the folding endurance test is the chief criterion of paper in general or that the requirements of 2 per cent of the paper produced should warrant a change in standard relative humidity, unless further data indicate its desirability.

Dr. W. M. Bovard in Australia

A letter has just been received from Dr. William M. Bovard from Fitzroy, Melbourne, Australia. Doctor Bovard was connected with Package Paper and Supply Corporation, Springfield, Mass., and went to Australia last year to establish a plant to produce waxed paper for the Australian trade. Doctor Bovard writes:

"Everything here is going well and we have our wax paper factory in full swing. We had a little hard luck in that the most complicated machinery, viz., the sheeter and the printing press, were in a boat that caught fire in Brisbane, so that the machinery was under water for six weeks and was much corroded and damaged by the heat. We finally succeeded in getting it into working order and I am enclosing one of the first sheets taken from the machine."

The product shows extremely fine quality, printed with the trade mark of MacRobertson's who are chocolate and cocoa manufacturers in Fitzroy.

Doctor Bovard wishes to be remembered to his American friends in the Technical Association.

"Jones Gears"

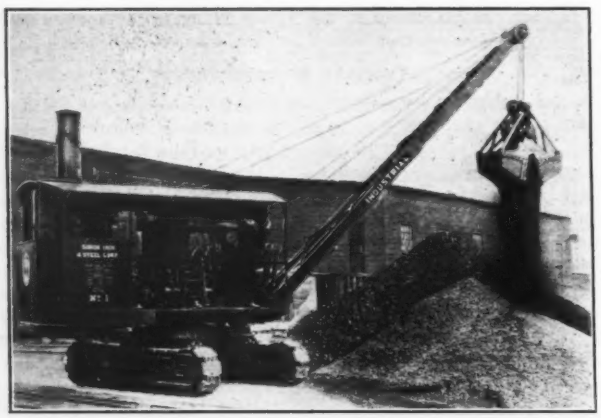
The W. A. Jones Foundry and Machine Company, 4401-51 West Roosevelt Road, Chicago, has just issued its new catalogue No. 29 entitled "Jones Gears." The catalogue contains descriptions and illustrations of giant gears to small pinions of every kind and shape, spur gear speed reducers, enclosed worm gear drives, gears made from cast iron, cast steel, forgings, rawhide, bakelite and teeth cut or moulded, spur, bevel, worm, etc. The book in its 224 pages contains specific detailed information of all these gears that cannot fail to be of great interest to the engineer, purchasing agent and superintendent, to whom it will be sent gratis on request.

TECHNICAL SECTION, PAGE 74

A NEW 10-TON CRAWLING TRACTOR CRANE

The Industrial Works, Bay City, Mich., which recently designed and built several 200-ton locomotive cranes which were the largest in the world, now offer a new type at the other end of the scale. This is a 10-ton crawling tractor crane embodying many new engineering features and known as type "D."

One of the most important features is the independent control of the traveling, slewing and hoisting motions. These motions may be utilized in a variety of combinations which are said to result in a greatly increased speed and efficiency of operation. For instance, the hoisting and slewing motions may be combined in bucket work for operation at high speed, and when traveling the boom may be swung in any direction to clear obstructions. Slewing in either direction is accomplished without reversing the engine by means of a double friction clutch and a train of bevel and spur gears. A slewing brake holds the boom securely with a suspended load in any position. When operating on uneven ground, this brake eliminates any possibility of sudden rotation with its usual disastrous results.



NEW CRAWLING TRACTOR CRANE

The vertical slewing shaft is located accessibly at the front of the crane close to the base of the boom, and since the power is transmitted at this point, there is no great slewing stress carried through the revolving frame.

The entire upper works rests on a rotating steel base, which insures rigidity and perfect alignment. This base rotates on four conical steel rollers which are easily accessible and which may be taken out without removing any of the parts or jacking up the crane. Heavy steel side frames which carry the shaft bearings are bolted to this rotating bed. These bearings are arranged on the outside of the frames so that any shaft may be easily removed without displacement of other parts. All running bearings are provided with replaceable bronze bushings. Wearing surfaces of all thrust bearings are separated by bronze washers and bronze collars are placed behind each bevel gear. All gears in the upper works are of cut steel. All oil pipes lead to the operator's platform and the lubrication is accomplished by a pressure system. Clutches controlling the various motions are of a new friction type which are said to engage smoothly and without shock.

Tractor shoes are close fitting, smooth surface steel and they operate over adjustable idle sprocket bearings which take up the slack in the tractor belt. Five large size rollers of 25 inches diameter on each side decrease traveling friction and keep the bearings high up out of the dirt. The steel bed plate mounted on the car body is cast integral steel with a circular roller path and external slewing rack. A steel hollow center post is pressed under heavy pressure into this base plate, taking all unbalanced stresses and forming a center of rotation for the superstructure.

The crane has two traveling speeds and reversal of direction is accomplished by reversing the engine. Steering while propelling is accurately accomplished from the operator's platform through friction clutches and brakes controlling each tractor belt. Either belt may drive, coast or be held by brake in any degree to negotiate as sharp or wide a turn as desired. This propelling and steering mechanism is one of the exclusive features of this type "D" crane. It enables the operator to propel and steer the crane independently of all other motions with the boom in any direction. It is especially powerful enabling the crane to travel up steep grades and over rough ground. Propelling up an incline skidway onto a flat car for transportation is very easily done. Other exclusive features are the automatic double hoisting drums which provide automatic control of the bucket during operation. Both drums provide enough rope pull as required for dragline and hoisting purposes. The feature of hoisting the bucket open on the auxiliary drum greatly increases the output of the crane and makes operation much simpler. A radius varying appliance consisting of bronze worm, worm wheel and drum, and controlled by friction clutches and semi-automatic brake, raises or lowers the boom when loaded to its maximum capacity. Levers actuating all motions are conveniently placed in two rows in front and alongside of the operator's platform which is located on the right hand side with a full view of the work being done.

The new Industrial is built for either steam, electric or gasoline power. The steam crane has two horizontal, double acting cylinders 6-inch diameter by 8-inch stroke. The engine is equipped with a simple radial type reversing gear, by means of which loads may be lowered and the hoisting line payed out by power. Cylinder and crosshead guides are cast in one piece and bored at the same setting, thus insuring accurate and permanent alignment. The gasoline crane is equipped with either the "Buda," Climax, Wellman, Seaver, Morgan or Automatic semi-Diesel engine at the option of the purchaser.

The crane is extremely versatile, operating with clamshell or dragline bucket, electro-magnet, hook and block or grapple. It is readily convertible into a shovel or a pile driver. The makers are confident that their new crane will supply a demand for a general utility crane of small capacity sturdily built. It should find a ready market in practically all fields of industry.

Wide Paper Machines Embarass Wire Makers

The very wide newsprint machines now being installed by many of the Canadian mills have created a demand for wire cloth beyond the capacity of many of the wire weaving plants in Canada says *Chemical and Metallurgical Engineering*. The Niagara Wire Weaving Company which manufactures wire cloth for pulp and paper machines, has found it necessary to build an addition to their plant 240 by 50 feet, two stories high, in which looms will be installed to permit the manufacture of the wider cloth for the wide newsprint machines.

Use Ground Glass for Testing Waterproof Papers

Waterproof papers are tested at the Bureau of Standards by the use of a piece of ground glass similar to that used in the back of a camera. The paper is folded into the shape of a small box, and is filled with water after being placed on the glass. The glass rests on a dark surface, such as black paper, and has the ground side uppermost. If moisture goes through the paper it makes that part of the glass transparent, and when the box is lifted the damp section shows dark in contrast with the ground surface of the glass.

TECHNICAL SECTION, PAGE 75

CURRENT PAPER TRADE LITERATURE

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

CLARENCE J. WEST, CHAIRMAN

Machinery

Cylinder Paper Machine. W. S. Crandell. U. S. pat. 1,450,488, Apr. 3, 1923. The couch roll is journalled in bearings supported on standards, and does not rest on the cylinder mold. The latter is journalled in cradle arms pivoted at one end, while the other end of each cradle arm rests on an adjustable spring which presses the cylinder mold into contact with the couch roll with sufficient force that the cylinder mould is driven by contact with the couch. The tension in the two springs supporting the two cradle arms can be adjusted simultaneously or independently of each other. The couch roll is surmounted by a press roll, so that the long felt leading to the press is eliminated, and the paper can be led directly to the driers.—A. P.-C.

Method of Felting Fibers on the Paper Machine. G. S. Witham, Jr. U. S. pat. 1,434,033, Oct. 31, 1922. A roll is provided, rotating above the wire, in close proximity, but out of contact with it, and at the same peripheral speed, which is placed between the pond and the suction boxes. An air jet is placed just in front of the roll, which puddles the water and stock slightly so that in passing between the roll and the wire the fibers are forced compactly together and crowded through a relatively narrow space. The air also serves to break up bubbles and lumps of fibers and to eliminate froth.—A. P.-C.

Vacuum Sluice for Cylinder Machines. D. H. Schwartz assignor to Holyoke Vacuum Sluice Co. U. S. pat. 1,434,318, Oct. 31, 1922. In multiple vat cylinder machines, when the felt carrying the pulp sheet from one or more vats reaches the next couch roll, the pressure of the roll on the cylinder mould presses water from the newly formed sheet. This water is necessarily forced back from the nip of the rolls and soaks into the felt and the previously formed sheets. A suction nozzle is provided which rests across the entire width of the felt just in front of the couch roll to remove as much water as possible from the pulp, leaving relatively little to be squeezed out by the action of the couch roll.—A. P.-C.

Slice for Paper Machines. G. S. Witham, Jr. U. S. pat. 1,431,858, Oct. 10, 1922. The slice is made so that it can be adjusted vertically, and also by rotation about a horizontal axis at the top of the slice. It is claimed that this allows of finer adjusments, and also that adjustments by rotation about the axis change the area of the pond and can consequently be used to take care of variations in the degree of slowness or freeness of the stock by introduction of more or less water into the system.—A. P.-C.

Couch Roll. T. A. Cuish, Jr. U. S. pat. 1,428,760, Sept. 12, 1922. The couch roll consists of an expansive core over which is fitted an elastic covering (preferably of rubber). After the cover is in place the drum is expanded to tighten it. The cover is made long enough for the ends to be pulled down and fastened between a collar and a nut on the shaft. The surface of the covering is provided with a large number of recessed bosses which act as suction cups and help to pull the sheet from the cylinder on to the felt.—A. P.-C.

Method of Stretching Fourdrinier Wires. J. O'Hara. U. S. pat. 1,420,135, June 20, 1922. The breast roll is used as a stretch roll, the bearings being mounted in grooved brackets and their position adjustable so as to keep the wire under the required tension. —A. P.-C.

Method of Feeding Stock to Paper Machine Wires. J. M. Murray, assignor to International Paper Co. U. S. pat. 1,421,981, July 4, 1922. The slice and pond are entirely eliminated, the stock being fed from the head box on to the wire over a dam and a slightly curved sloping surface extending across the width of the machine. The height of the dam is adjustable. The dam is made of flexible sheet metal, and any irregularities in its height can be adjusted to make it even throughout. The head box is provided with an overflow chamber, the front wall of which extends to the top of the box, while the rear wall, which does not extend as high as the level of the stock in the box, is surmounted by a weir plate, the height of which determines the level of the stock in the head box. Any foam formed in the head box rises to the surface at this point and passes over the weir into the overflow chamber. The height of the discharge dam regulates the speed at which the stock is discharged on the wire, while the difference between the height of the dam and of the weir plate controls the amount of stock delivered, and consequently the weight of the paper. It is claimed that this method of feeding gives more efficient felting of the fibers in all directions, resulting in substantially equal strength of the paper in the machine and cross direction.—A. P.-C.

Cylinder Paper Machine. W. S. Crandell assignor to American Perforated Wrapping Paper Co. U. S. pat. 1,422,541, July 11, 1922. The cylinder mold is constructed of rings, having longitudinal braces "halved" into the rings, and the usual spiders or wheels are eliminated by carrying the mold on a series of rollers, four underneath at each end, and one at each end at the top, placed inside the mould so as to help support the couch roll. One or more suction boxes are provided at such places as will hasten and facilitate the deposition of the layer of fibers on the wire covering; and additional suction boxes are provided to draw off the water which is carried up the cylinder mold at high speeds, so that the running speed can be increased without excessive amounts of water being carried up and wetting the sheet. Felting of the fibers, which, on fourdrinier machines is obtained by transverse motion of the wire, is obtained in this case by transverse motion of the fiber-bearing water in the narrow passage between the cylinder mould and the "circle," caused by a reciprocating motion of a series of suitable vanes in the "circle."—A. P.-C.

Suction Slice for Cylinder Machines. C. E. Cramer. U. S. pat. 1,423,400, July 18, 1922. The slice consists of a suction nozzle gradually widening out into a large suction chamber to facilitate passage of the water. The lower lip of the nozzles lies flat on the felt and projects beyond the upper lip. It acts as a scraper and prevents the water from passing under the slice.—A. P.-C.

Deckel Strap Scraper. A. J. Davies. U. S. pat. 1,425,240, Aug. 8, 1922. The invention covers a method of mounting the deckel strap scraper in such a manner that it yieldingly engages the strap and can follow any irregularities in its upper surface, and the pressure of the scraper can be adjusted without removing it from the machine.—A. P.-C.

Seam for Paper Machine Wires. H. Lindsay assignor to Lindsay Wire Weaving Co. U. S. pat. 1,440,159, Dec. 26, 1922. In making the seam the ends of the wire as woven are laid one on top of the other so that the severed warp threads adjacent the respective ends are in substantially the same plane; then an extra filler thread is laid along the edges and sewed against them, using the customary spacing instrument, so that when the seam is completed and the ends are opened out the additional filler thread lies flat just in between the ends of the warp thread.—A. P.-C.

Fourdrinier Paper Machine. J. K. Darby. U. S. pat. 1,436,240, Nov. 21, 1922. The patent covers various mechanical

TECHNICAL SECTION, PAGE 76

features in the construction of the fourdrinier part of the paper machine whereby the wire can be changed without having to remove any of the rolls.—A. P.-C.

Vickery Felt Conditioner. *Paper Mill* 48, No. 6, 28, 30 (Feb. 9, 1924). A discussion of its merits.—A. P.-C.

Cylinder Machine for Board Manufacture. T. B. Munroe assignor to C. F. Dahlberg. U. S. pat. 1,456,608, May 29, 1923. The patent covers in detail the construction of the seal between the cylinder mold and vat, which cannot be satisfactorily described without figures. Over and somewhat back of the cylinder is a second one, of exactly the same construction, but somewhat smaller, the distance between the two being adjustable. On emerging from between the two cylinders, the sheet still adheres to the one on which it was formed, passes under two small press rolls, and then goes to the regular presses, of which four are provided. It is finally passed between a pair of knurled rolls to give it the desired finish. —A. P.-C.

Attachment for Paper Machine Driers. J. W. Smith. U. S. pat. 1,420,454, June 20, 1922. Same as Can. pat. 217,300. See *Pulp & Paper* 20, 658, Aug. 3, 1922; *Paper Trade J.* 75, No. 7, 56, Aug. 17, 1922.—A. P.-C.

Papermaking Machine. A. Aldrich. U. S. pats. 1,421,752 to 1,421,754, July 4, 1922. Same as Can. pats. 221,197, 221,198, July 25, 1922, and Can. pat. 221,701, Aug. 1, 1922. See *Pulp & Paper* 20, 768, 769, Sept. 7, 1922.—A. P.-C.

Cylinder Paper Machine. W. S. Crandell. U. S. pat. 1,457,349, June 5, 1923. The vat is divided into two portions by a horizontal shelf extending across the whole width and from the dam almost completely to the back, leaving, however, a sufficiently wide passage to allow of proper circulation of the stock from the lower to the upper passage. The stock overflows the dam into the "circle" containing the cylinder mould. The excess of stock is led out through two short pipes of large diameter at the bottom of the "circle" and pumped back into the bottom portion of the vat, near the partition which separates it from the cylinder mould, additional stock being supplied through one of the pipes to make up for what was used up. It is claimed that this construction allows of much higher speeds without the formation of interfering eddies and countercurrents, while proper adjustment of the relative speeds of the pump on each side ensures even thickness across the width of the sheet.—A. P.-C.

Method of Watermarking Paper. W. S. Lucey assignor to Hammermill Paper Co. U. S. pat. 1,455,752, May 15, 1923. A marking roll is applied to the wet web while it is in such a condition that the roll will displace the fibers along the lines of the desired marks, but of such strength that the roll will not tear it; and the web is then subjected to sufficient pressure to cause a portion of the displaced fibers to flow back into the depressions made, making the surface of the paper quite level. This is most readily accomplished by marking the paper against one of the first press rolls, passage through the following presses smoothing the surface of the paper. This method gives a clear sharp watermark, visible when held up to the light, but inconspicuous by reflected light.—A. P.-C.

Drive for Cylinder Paper Machines. W. S. Crandell assignor to American Perforated Wrapping Paper Co. U. S. pat. 1,453,090, Apr. 24, 1923. The various parts of the machine (presses, driers, calenders) are driven from a line shaft by means of friction cones. The positions of the small cones on the main shaft can be adjusted within certain limits and independently of one another, and the larger friction cones on the shafts connected to the driven parts are pressed against the driving cones by means of springs. The lateral adjustment of the small cones along the line shaft increases or decreases the pitch lines upon which they engage the large cones, and consequently affect the speed of the driven cones.—A. P.-C.

Sectional Driving of Paper Machines. Bernard James. *World's Paper Trade Review* 80, 1715 (Nov. 23, 1923). The author suggests that variations in length of the sheet at the wet end of the machine are caused by faulty mechanical handling. If this be the case, then the possibility exists of driving the machine from and including the first driers to the wire with one large motor. This applies with special force to machines which primarily are intended for a small range of substances, such as fast news machines.—A. P.-C.

Couch Roll Jacket Conditioner. H. Boyle. U. S. pat. 1,460,365, July 3, 1923. A suction box connected with the suction boxes under the wire is provided which is pressed against the couch roll jacket by means of springs, the tension of which is adjustable. The usual doctor blade is not removed, but it can be pressed much more lightly as it is required only to remove adhering particles of pulp, etc. The couch roll is thus better dried, and the deterioration due to the scraping action of the doctor blade is greatly reduced.—A. P.-C.

Suction Boxes for Fourdrinier Paper Machines. L. M. Start, S. B. Stafford and J. W. Vedder. U. S. pat. 1,458,558, June 12, 1923. The suction boxes are given a lateral oscillating motion by supporting one end on rollers and connecting the other end with eccentrics in such a manner that the vertical motion of the eccentric is absorbed by eccentric straps and only the horizontal motion is imparted to the suction boxes. The eccentrics of succeeding suction boxes are set at intervals of 180°.—A. P.-C.

Paper Thickness Indicator and Recorder for Paper Machines. E. H. Butterfield and F. D. Otterbein assignor to T. Harvey, Jr. U. S. pat. 1,453,438, May 1, 1923. A roller journalled at the end of one arm of a bell crank lever rests on the paper as it is passing over a roll of the paper machine, and the other arm of the bell crank lever is connected through suitable gears to the indicating and to the recording mechanisms. Any variation in the thickness of the paper changes the position of the roller in contact with it, which in turn moves the other end of the bell crank lever. This motion is multiplied by the gears and transmitted to the indicator and to the recorder. The instrument is preferably mounted on a rotating screw shaft which makes it travel from one side of the machine to the other, the rotation of the shaft being automatically reversed when the instrument reaches the side of the machine. Electrical connections are provided which turn on a white light when the paper is running at the proper thickness, a blue light when it is lighter, a red light when it is heavier, and turns off the light completely when the thickness falls outside the variations allowed by the specifications.—A. P.-C.

Rewinding Paper for Towels, Toilet Paper, Etc. W. S. Crandell assignor to APW Paper Co. U. S. pat. 1,457,822, June 5, 1923. The paper from the jumbo roll is passed over a pinch roll, around a drum where it is cut transversely (but not so as to sever the paper completely), and wound on a rewinding shaft. A slitting roll equipped with annular knives or cutting discs is placed above the rewinding shaft and is driven at a greater peripheral speed than the winding drum, thereby helping to rewind the paper tightly.—A. P.-C.

Rewinder for Toilet Paper. L. A. Straubel assignor to Straubel Machine Co. U. S. pat. 1,452,228, Apr. 17, 1923. The patent covers various mechanical features of construction to ensure delicate adjustment of the winding force on the core spindle, and to facilitate the rotation of the core spindle frames after completion of a roll to bring the next core in position for winding.—A. P.-C.

Rewinder. R. McC. Johnstone assignor to Cameron Machine Co. U. S. pat. 1,433,551, Oct. 31, 1922. A handle is provided for operating the pinions carried on the movable carriage of the top pressure roller, and this handle is constructed so that it is always practically in the same position regardless of the vertical position of the pinions and carriage.—A. P.-C.

Device for Feeding Paper to Calenders. W. F. McCarthy. U. S. pat. 1,428,852, Sept. 12, 1922. A thin sheet metal apron is provided across the width of the calender to deliver the paper directly into the nip of the rolls. It is claimed that this reduces waste caused by wrinkling and buckling of the sheet and gives greater uniformity in the finished paper.—A. P.-C.

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SECURING FUNDS FOR BUSINESS EXPANSION*

By Arthur M. Leinbach

Financing is regarded by many business men as a mysterious method of turning fixed assets into cash, the intricacies of the practice being known to only a privileged group of bankers and bond houses. Frequently this belief is in itself one of the chief reasons for the failure of an issue of $1,000,000 or less of securities. If the executive will first and foremost put aside the erroneous notion that there is anything mysterious or intricate about his errand of securing funds for the expansion of his corporation, then he will have met an important requirement of successful corporation financing.

Corporate financing today is a merchandising proposition. A corporate loan—be it in the form of either notes or bonds—is marketed like a commodity and is bought, sold, and traded in among the various owners of the loan from time to time. If the issue is of bonds, the bond firm is the wholesaler of the loan that the business man has for sale, and the procedure and the principles to follow are the ordinary principles which would be followed in arranging the distribution of any commodity through a wholesaler.

Approach the matter from the merchandising angle. The financial statements and other certified facts concerning the proposed bond issue are, in effect, the sample case which is shown to the bond firm. No competent business executive would allow his salesmen to go to valued customers with a soiled and damaged line of samples. Yet it is quite possible that, unappreciative of the fact that he is SELLING A LOAN, this same business man would present financial statements to the bond firm that are unsatisfactory in the form in which they are drawn up. The statements may not necessarily be faulty in that they show too small an amount of assets or earnings, but—as is frequently the case—they are drawn up in incomplete form, and the absence of essential detail prejudices the buyer of the bond firm against the issue. Have a sample of your goods made up in the accepted fashion and then look for your most likely market.

Finding the Market

Finding the market is again a merchandising proposition. When a merchant or manufacturer has a supply of goods for sale he naturally confines his offerings to those buyers who are most likely to be in the market for his product. Should the salesman of a lumber concern confine his selling efforts to wholesale grocers, he would, in the absence of unusual conditions, be looking for work somewhere else in short order. Nevertheless, bankers and brokers will bear testimony from their own experience that some business men who have loans for sale do not use any greater discrimination in marketing their offerings.

As the average business man usually has a loan for sale only at infrequent intervals, he is not familiar with the various types of buyers. Consequently he is likely to become discouraged by successive failures in what he terms "arranging for the loan," unless he is fortunate enough to come upon an interested buyer early in the proceedings. A survey of the market would disclose the fact that there are three main types of buyers of corporate loans. They are the commerical banker, the note broker, and the bond underwriter. While, in the present article, we are considering the latter type primarily, let us note, in a general way, what the other buyers of loans require.

Bank Loans

The banker and the note broker, if the quality of the article offered for sale meets their requirements, are beyond doubt the best customers for corporate loans. Their requirements are more rigid than the bond firm, but the prices they will pay are higher—that is, they offer the accommodation at the lower cost. Business men are more familiar with the requirements of the commercial banker, or paper broker, than with the requirements of the investment firm. The commercial banker expects to be called upon for accommodations that are essentially of a temporary nature. He prefers to keep his assets, that is, his loans, as liquid as possible, and expects any necessary expenditure for fixed property of a corporation to be financed by long-term loans and not, through him, in the form of a bank loan. It is considered good banking practice to require that the amount of borrowing be reduced as steadily and quickly as the borrower is able to do so. The loan is made on the "faith and credit" of the borrower rather than on the value of the borrower's fixed assets. The commercial banker is emphatic in his inquiries as to the moral integrity and standing of his client in the eyes of his business associates. He wants to know for what purpose the money is desired and how and when the borrower intends to liquidate the obligation.

Bank loans are given without the security of physical assets more frequently than not. The banker is lending out money which has been placed in his custody and for which he is personally liable in the event of loss. A much quoted statement of an internationally known American banker to the effect that he "would rather accommodate a good borrower on poor security than a questionable borrower on good security" typifies the requirements of the commercial banker as a buyer of loans. These requirements, as is also the case with the requirements of the commercial paper broker

* From Management and Administration.

and the investment banker, will be found to vary with the supply of available credit and the demand for accommodations at any given time.

The Note Broker

The commercial paper broker, as a buyer of loans, has a more highly specialized set of requirements than either the banker or the bond firm. With him, corporate finance is more of a merchandising proposition than with the banker, because he is both the buyer and the seller. His purchases are made not for his own account, but with the intention of reselling the commercial paper to banks and individuals on a margin of profit. He is prepared to handle a larger accommodation than the banker because he distributes the entire amount of paper which he has purchased among a number of bankers who are his customers. His offering of the commercial paper to the banker implies that he has carefully investigated the borrower and considers him worth the line of credit which has been extended. This implied recommendation involves a responsibility and causes his requirements to be exceptionally rigid.

Commercial paper houses have in their many years of experience a lower record of losses than any other class of financiers. The commercial paper broker, is, therefore, welcomed by the buyer of commercial paper at the bank because he is known to investigate minutely the merchandise in transit or other physical security as well as the financial responsibility of the borrower whose loan he is buying and reselling. Commercial paper brokers usually accommodate clients who are able to stand their extremely rigid requirements at a lower cost than any other source of credit. As a class of buyers of loans, they pay the highest prices for the loans which a business man has for sale, but like every buyer who pays the top price, they expect and require an article of the highest quality.

The Bond House

Should the seller of a loan find that his article of sales does not meet the requirements of these two classes of buyers, he still has a large group of potential buyers represented in the bond underwriting firms. In the natural order of things, bond houses get, and expect to get, only those types of loans which are not suitable for banks or note brokers. Any offering of a loan that is typically a bank loan will immediately raise the question—"Why is not this loan gotten from the local bankers?" In addition to the fact that offerings of unsuitable articles of sales contradict the accepted principles of salesmanship, it is more costly to finance a concern through the sale of an issue of bonds than to secure a bank loan. The corporate loan which is most suitable for underwriting might be described in a general way as a loan issued to finance permanent improvements, or the acquisition of new property, or a loan for other corporate purposes which could not be paid off promptly within a few years at most without impairing the cash position of the corporation.

Bond houses do not buy loans—which in this case are represented by bonds—for their own account, therefore they will restrict their purchases to loans which they believe are salable to the investor. The larger bond houses have a special department to do the buying. This department—or an individual in the case of a smaller firm—by frequent consultation with the sales department keeps himself intimately familiar with the likes and dislikes of the firm's customers. The buying motives of the customers are carefully studied and preference will be given by the buying department to loans which most completely appeal to these motives. When the seller of a loan feels prompted to protest that some of the provisions insisted upon are bothersome, he should take into account that these provisions are insisted upon to make the loan salable. The seller of a loan may perhaps feel that more consideration should be given to the excellent reputation for ability and honesty enjoyed by the officers of his concern—the borrowing corporation—in the trade or in the district where the corporation operates. If so, he should take into account that although the buyer of the bond firm may himself be very much impressed with the personal qualifications of these officers, he knows from past experience that the ultimate purchaser—that is, the investor—is likely to be unaware of the high local repute of the management of the borrowing corporation. Of course, if the corporation should be fortunate enough to include among its directorate men who are known throughout the country for their business ability and moral integrity, the investor, and consequently the bond firm, will be favorably influenced toward the bond because of this fact.

After weighing in his own judgment whether or not the proposed loan will appeal to the investor, the buyer for the bond firm will then satisfy himself of the intrinsic merits of the loan from the facts submitted by the seller and from his independent investigation. Every investment house appreciates that in the very act of offering an issue of securities for sale it puts an implied recommendation and stamp of approval on the loan. The next facts that the buyer will consider—quite probably in the order mentioned—are: first, the line of business in which the corporation is engaged; second, the size of the issue; third, the security of the issue; and fourth, whether the issue can be sold quickly or whether it is a "slow-moving piece of business." As these facts, in the main, will influence the buyer, it is suggested that the seller of a loan compare his issue in these respects and eliminate all firms which would not be likely buyers because they do not handle securities that compare with the proposed loan in one or all of these four aspects.

Specialization Among Bond Houses

Most bond houses specialize in the underwriting of securities of concerns engaged in a certain line of business. The clients of the bond house frequently have been responsible for this specialization. The socalled railroad bond firm will, however, occasionally underwrite industrials or public utilities, and the same variation in practice is followed by public bond and industrial bond firms.

These different houses have drawn to themselves the class of buyers who prefer the type of bond in which they specialize, or they have "educated" their customers to the fine points of the kind of securities which they handle. Consequently their sales department encounters less sales resistance in this type of issue and the issue is marketed more quickly and hence more profitably.

Specialization has become marked among bond houses and particularly in the field of industrial securities; certain bond firms handle issues of one line of industry, such as the tobacco industry, the oil industry, or the textile industry, in preference to the securities of any other type of industry. The buying department of such a bond firm keeps itself well informed about business conditions in the line of industry in which the firm specializes, and the buying department members familiarize themselves with the important trade facts that tend to influence the value of the securities of this line of business. The buyer, therefore, will be apt to be more appreciative of the intrinsic merits of a proposed loan of the industry in which he specializes than another buyer would be who is not so familiar with the peculiarities of the business.

Size of Bond Issue

The size of the corporate loan also determines the bond house to which it should be offered. Each bond firm has a definite capacity of distribution with which the buyer of the bond firm is familiar. A considerable portion of the merchandising expenses, such as advertising, investigation, circularization, deliveries, and sometimes salesmen's commissions run no higher for a $1,000,000 issue than for a $500,000 issue. The preference of the buyer, as to size, will therefore, be a loan which is as near to the fixed distribution of the firm as possible. The selling expenses of the smaller loan would be higher per thousand-dollar bond, and the price paid to the corporation which is raising the money would be fixed accordingly. Everything else considered, the borrower will get the best price by selecting a house with the amount of distribution required for his loan.

The security of the issue also influences the buyer of the bond house. He wants to know immediately whether it is a secured bond, debenture, preferred or common stock. Most bond firms limit their dealings entirely to bonds, although a number of firms include among their bonds a few high-grade investment preferred or common stocks. In point of fact, many stocks offer a more conservative investment than many bonds, and it is the element of risk involved in the security rather than the name, that fixes the type of issue which the house will buy. However, the most favorable terms can ordinarily be obtained for a bond issue from a firm which specializes in bonds, and for a stock, especially a common stock, from a firm which specializes in stocks.

The rate of return to the investor is a point to consider in marketing a loan. The rate of return to the investor is a requirement that is not as rigid, within limits, as the other requirements mentioned above. That is to say, any given house will probably underwrite securities which yield from 5½ to 7 per cent to the investor under present conditions of the market. The more conservative issues—and it follows that the larger degree of safety will sell at the lower yield—have a broader market in that they are suitable investments for banks, insurance companies, and wealthy investors who buy in large blocks. The medium grade issues, or the class of securities known as a good "business man's risk" are usually sold in smaller blocks to individuals and are not suitable for institutions. Consequently the first type of issue will move more quickly and can be underwritten with a smaller margin of profit to the bond house, whereas the high yield securities are oridinarily considered as slow-moving issues and require a large margin of profit to the underwriter. A house which is accustomed to dealing in the slow-moving, high yield issues will have a different character of sales methods, equipment, and personnel from the house which deals in quick-moving, readily marketable issues. The former firm would not be likely to pay as high a price for a quick-moving issue as the latter firm would, and the latter would not be likely to consider the purchase of a slow-moving issue at any price.

Frequently a borrower will come into the market with an inaccurate conception of the salability of his proposed loan and will not readily concede that the proffered price is equitable to both parties concerned. It is the business of the buyer of the bond firm to judge the salability of the proposed loan, and it is the exception rather than the rule when his judgment is at fault. Conditions in the bond business change from one period to the next and the experience of a borrower several years ago is no criterion of conditions at any other stated period. Incidentally, during the past five years or more and including the present, it is generally recognized that the bond market is a "buyers' market" and the costs involved in the sale of an issue are considerably higher than the cost ten years ago.

Finding the Right Bond House

The financing officer of the corporation seeking a loan may spare himself exhaustive research for a suitable bond house by making use of one of these several aids. Newspapers and financial magazines publish daily the offerings that are made by bond houses and summarize the various offerings made throughout the week. Investors' services and the publishers of the several security manuals include in their service a brief description of all the offerings made over a period of three months or for the year. While these compilations are intended primarily for the investor, they will, equally well, serve the corporation which intends to sell an issue of securities by showing which types of securities are being handled by each bond house.

Any bond house will mail, upon request, their current list of offerings. This list should, however, be used by the seller of the proposed loan only as a guide and not as a conclusive summary of the buying requirements of the house in question. This is so, because many of the issues included on the offering sheet for investors are not actually underwritten by the bond firm, but perhaps represent a small block of securities purchased at a discount from another firm that actually underwrote the issue.

The fact that it is so difficult for a busy executive to become familiar with the requirements of the market for loans has led to the establishment of firms and individuals in Wall Street and in the money centers of our other larger cities whose business it is to place issues of securities with the proper selling concern. Their knowledge of the market and the peculiar wants of each individual firm enable them to sell the loan at a higher price and in less time than the seller himself is usually able to do. They are well versed in the practical side of underwriting and put the issue in the most salable shape possible, eliminating all of the undesirable features as far as the buyer of the bond firm is concerned, and arranging for the inclusion of technical provisions in the indenture of the issue which would tend to strengthen the weak points. Some of the small distributing houses, not having the necessary facilities for buying new loans, depend almost entirely upon these so-called "wholesale dealers" for the securities they sell. With their practical experience in the bond business, it follows that these wholesale dealers have ready access to the private office of the officer of the bond house who has charge of the buying of loans. The commission or "overwriting" of these dealers is usually warranted by the services they render a business man inexperienced in placing his issue.

Adapting the Loan to Meet Requirements

Fortunately a loan is quite an elastic article of sale, so that within obvious limits, it can be modified to suit the wants of the buyer. When one or several bond firms are selected, as possible buyers of the issue, it is expedient for the bond seller to outline tentatively the form in which the issue will be sold. That is to say, the buyer of the loan will want to have enough particulars in the first interview to decide, subject to his own investigation, whether or not he might be interested in purchasing the proposed issue. He cannot decide, of course, when the seller of the loan has no more definite conception of the loan than that he "wants $750,000 for the expansion of his business;" that the fixed assets of the concern are worth substantially in excess of the proposed financing; that the interest is earned on a comfortable margin and that he is "open to any reasonable proposition." Unless the buyer is extremely anxious to secure a piece of business for the sales department to work on immediately, he is likely to give a negative answer to such an offering.

Presentation Requirements

The seller of the loan should offer the bond buyer he wants to interest a comprehensive and detailed statement of earnings, covering five previous years or more, and detailed balance sheet. More consideration will be given to a statement that is prepared and certified to by an independent accountant who is known to financial houses to be accurate and conservative. The buyer wants to know in the first interview how the issue is secured—if it is a secured loan—what coupon rate the security will bear, what sinking fund provisions are intended, a statement of how the proposed financing will affect the affairs of the corporation, and a tentative idea of the price at which it can be purchased by the underwriter. Each individual issue, of course, will call upon other points, and, in all probability, such inquiries will be made early in the negotiations, if the buyer is at all interested.

At this point of the negotiations, the usual merchandising principles involved in the sale of commodities cannot be used without modification. For instance, it appears to be an open question with business men arranging a loan, whether or not the weak points of the loan should be emphasized or even mentioned. To those with a great deal of practical experience in arranging loans, there is no doubt on this point. If the loan is obviously not a bona

fide proposition, the investment banker is the wrong man to attempt to place it with, and if the loan is a bona fide proposition, it is always to the advantage of the borrower to discuss any weak points quite freely with the man who is intending to underwrite it. Nine times out of ten, any unmentioned weak point will come out with later investigation, and it hurts the deal to have such points disclosed at that stage of the game. In the one time out of ten that such facts are not disclosed by the investigation of the bond house, the weak point will become evident when the loan is offered in a definite form to the investing public. If such points should be of a nature seriously to impair the intrinsic merits of the issue, they will be reflected in the market price after the security is sold. The facts made known when the security was originally offered for public investment being sponsored by the highest executive officer of the borrowing corporation, this situation reflects upon him personally. The net result is that the corporation of issue goes on public record as having impaired credit.

Caveat Emptor

These points are brought up here not because it is common practice for borrowing corporations to misrepresent the status of the proposed financing, but because frequently the weak points of any particular piece of financing, which are perhaps known only to the executive arranging the loan, are not emphasized in the negotiations with the underwriting firm. The adage "let the buyer beware" has no place in the practice of corporate finance, because financing is built primarily on confidence. Ordinarily, the underwriter, through purely technical provisions in the indenture is able to safeguard his clients against any existing points of weakness in the loan, and to do so without making the loan more costly on the part of the borrowing corporation. A great many instances could be quoted of securities now outstanding among public investors where the borrowing corporation is grateful for the inclusion of these technical provisions because they have upheld the market level of their outstanding securities. Examples might also be quoted of loans that never reached the underwriting stage because some of the unfavorable points were not disclosed in the early part of the negotiations, although these points might have been strengthened adequately in the final draft of the identure of the loan, so as to make the issue readily marketable.

The cost of financing may be reduced to a minimum by offering every possible provision for the safeguard of the investor of the indenture of the loan. Shoes are bought for either style, comfort, or serviceability, or perhaps all of these qualities. A high price will be paid for the particular brand of shoe which is certain to give these qualities. Bonds are bought for income, present and prospective. A high price will be paid for any particular bond which is certain to give this income. The element of uncertainty is called the "factor of risk" in the case of the investment and actually represents the factor of risk in the purchase of a pair of shoes.

When an investor pays $100 for a $6.00 annual income he is paying a considerably higher price than would be represented in the purchase of an 8 per cent security at $100. In order to get the same return—$8 yer pear—on the former type of issue, he would have to invest over $133 at 6 per cent to get the $8 per year income available from the latter. The amount of yearly income for each hundred dollars invested determines the cost price of the loan to the buyer and not the fixed rate of return, nor the quoted price of any fixed denomination. A low yield represents a high price and a high price will give a low yield on any security with a fixed rate of interest.

The above explanation of price is given because borrowers are apt to deceive themselves into believing that they have arranged "cheap accommodation" because they secure a price close to the par value of the securities sold. The underwriter, on the other hand, may be able to sell the issue at retail at a premium over the par value because a high coupon rate still allows for a fair price to the investor on the yield basis. Moreover, the borrowing corporation is apt to be unappreciative of the higher comparative price of the loan that results from the decision of the underwriter to sell at 6½ per cent coupon bond instead of a 7 per cent coupon rate, which was the rate originally intended by the borrower.

The Machinery of Selling

Another caution which might be touched upon is the tendency of some borrowing corporations to refuse to modify their tentative plans for financing and to bargain with the buyer concerning the underwriting price. Were corporation loans advertised for sale to the highest bidder, as municipal loans are sold, then such rigidity of purpose might be more in keeping with things. Sellers of loans who attempt to drive hard bargains are frequently inclined toward the theory that "If Smith and Company won't buy the loan, some other company will."

This theory is more likely to be true in selling a commodity than in selling a loan. The system of distribution of bonds is more flexible and intricate than the system of distributing commodities. Many of the underwriting houses sell only a small portion of the loan to their own clients and organize a syndicate or selling group for the distribution of the larger portion. Even on an issue of securities involving less than $1,000,000, a thousand dealers in the same city and other cities may be invited to join the underwriting house in distributing the loan. While the buying is being negotiated, tentative deals may be in progress with other firms and an inquiry, will be passed along to these houses concerning the issue under consideration, although the name of the corporation of issue will not be mentioned until negotiations with the borrowing corporation are fully consummated. In this way it becomes known that a certain type of issue is being negotiated in some quarter of the financial district. When a loan is thought to be "shopped around" by the seller, its chances of being underwritten decrease greatly. For this reason it is not expedient to negotiate with several underwriters at the same time with the aim of selling to the buyer who offers the highest price.

Securities are frequently said to be "sold before they are bought" that is to say, allotments are arranged with other dealers as soon as the underwriting firm has a "firm offering" or an option on the proposed loan. All sales of new securities are made "when, as, if issued," and the definite certificates for the securities are prepared after an interval of several months. In view of the complex system of distributing securities, as outlined above, it is evident that promiscuously giving options on the loan to any one who appears to be a possible buyer is not good financing practice to be followed in any instance.

Planning the Loan

In preparing a tentative form for a proposed financing, the borrower should acquaint himself with the general principles of corporate finance. Actual practice may tend to vary with the accepted theories because conditions are changing constantly, both in business practice and financing requirements. As mentioned previously, the peculiarities of the investing public, taken as a whole, fix the requirements for successful underwriting, and during the past several years the mood of the investing public has been subject to noticeable changes. Consequently there has been a tendency to drift away from the principles of corporate finance as understood in the past.

As an indication of this it may be noted that an increasingly large amount of dividend paying stock is held by small investors not interested in the affairs of the corporation beyond dividends on the stock. Stocks have come up to an investment plane, wherever the likelihood of a continuance of dividends is indicated. Therefore, sometimes a stock issue is as attractive to the investing public as

(*Continued on page* 60)

Storage and Sprinkler Tanks as well as Processing Tanks and Acid Towers to meet all Paper Mill requirements. High grade Cypress, Cedar, or Fir —well seasoned. Immediate shipment. Expert erecting crews to install.

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SEND FOR SAMPLES AND PRICES

Imports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING AUGUST 16, 1924

SUMMARY

News print.....351 bls., 3,208 rolls
Printing paper.....180 cs., 407 rolls, 52 bls.
Wallpaper.....523 bls., 1 cs.
Filter paper.....25 cs.
Packing paper.....1,481 bls., 38 rolls
Wrapping paper.....482 rolls, 9 cs.
Drawing paper.....3 cs.
Cigarette paper.....161 cs.
Surface-coated paper.....102 cs.
Writing paper.....13 cs.
Colored paper.....1 cs.
Cardboard paper.....23 cs.
Baryta coated paper.....164 cs.
Tissue paper.....49 cs.
Paper hangings.....5 bls., 1 cs.
Decalcomania paper.....3 cs.
Straw paper.....322 bls.
Strawboard .....274 rolls
Miscellaneous paper....634 cs., 4,801 rolls, 12 bls.

CIGARETTE PAPER

Max Spiegel & Son, Cleveland, Hamburg, 31 cs.
F. P. Gaskell & Co., Pipestone County, Havre, 50 cs.
Standard Products Corp., by same, 80 cs.

WRITING PAPER

W. J. Byrne, Pipestone County, Havre, 6 cs.
Guibout Freres, Lafayette, Havre, 7 cs.

FILTER PAPER

Bernard Judae & Co., Cleveland, Hamburg, 11 cs.
H. Reeve Angel & Co., Inc., Albania, London, 14 cs.

DRAWING PAPER

H. Reeve Angel & Co., Inc., Albania, London, 3 cs.

PAPERHANGINGS

W. H. S. Lloyd & Co., Albania, London, 5 bls.
W. H. S. Lloyd & Co., by same, 1 cs.

WALL PAPER

F. J. Emmerich, Albania, London, 1 cs.
J. W. Hampton, Jr., Inc., Volendam, Rotterdam, 523 bls.

SURFACE COATED PAPER

Gevaert Co. of America, Volendam, Rotterdam, 3 cs.
Gevaert Co. of America, Nortonian, Antwerp, 12 cs.
P. Puttmann, by same, 1 cs.
P. C. Zuhlke, by same, 86 cs.

TISSUE PAPER

F. C. Strype, Baltic, Liverpool, 35 cs.
Meadows, Wye & Co., by same, 3 cs.
American Express Co., by same, 8 cs.
Columbia Ribbon & Carbon Mfg. Co., St. Anthony, Helsingfors, 3 cs.

NEWS PRINT

M. O'Meara Co., St. Anthony, Ramico, 25 bls.
M. O'Meara Co., Cleveland, Hamburg, 50 bls.
M. Gottesman Co., Inc., Pittsburgh, Hallstavik, 561 rolls.
Dell Publishing Co., Aden Maru, Hamburg, 432 rolls.
Parsons & Whittemore, Pres. Harding, Bremen, 1,631 rolls.
National City Bank, by same, 312 rolls.
H. Reeve Angel & Co., Inc., by same, 272 rolls.
J. P. Heffernan Paper Co., Columbia, Trieste, 276 bls.

PRINTING PAPER

B. F. Drakenfeld & Co., Baltic, Liverpool, 11 cs.
Oxford University Press, by same, 32 cs.
T. Haas & Bros., Orbita, Hamburg, 75 rolls.
J. H. Scott Paper Co., Pittsburgh, Hamburg, 50 rolls.
Street & Smith Corp., by same, 24 rolls.
Seaman Paper Co., by same, 24 rolls.
Traders Paper Co., by same, 234 rolls.
Traders Paper Co., by same, 52 bls.
H. Reeve Angel & Co., Inc., Pr. Harding, Bremen, 48 cs.
Perry, Ryer & Co., California, Glasgow, 89 cs.

WRAPPING PAPER

T. L. Kramer & Co., Eastern Dawn, Antwerp, 5 cs.
Birn & Wachenheim, Volendam, Rotterdam, 4 cs.
Republic Bag & Paper Co., Aden Maru, Hamburg, 482 rolls.

PACKING PAPER

J. P. Heffernan Paper Co., Cleveland, Hamburg, 1,393 bls.
M. O'Meara Co., Ala, Rotterdam, 60 bls.
Wilkinson Bros. Co., Inc., by same, 38 rolls.
Hudson Trading Co., Volendam, Rotterdam, 28 bls.

COLORED PAPER

P. H. Petry & Co., Reliance, Hamburg, 1 cs.

CARDBOARD PAPER

F. C. Strype, Volendam, Rotterdam, 23 cs.

DECALCOMANIA PAPER

Phoenix Shipping Co., Pres. Harding, Bremen, 3 cs.

BARYTA COATED PAPER

Globe Shipping Co., S. Ventana, Bremen, 114 cs.
F. Henjes, Jr., by same, 50 cs.

STRAW PAPER

J. P. Heffernan Paper Co., Cleveland, Hamburg, 322 bls.

STRAWBOARD

A. Vuyck, Ala, Rotterdam, 274 rolls.

PAPER

Japan Paper Co., Cleveland, Hamburg, 4 cs.
Japan Paper Co., by same, 3 rolls.
Globe Shipping Co., C. Verde, Genoa, 6 cs.
National City Bank, Orbita, Hamburg, 406 cs.
C. G. Keferstein, Pittsburgh, Hamburg, 31 rolls.
Hudson Trading Co., by same, 248 rolls.
Whiting & Patterson, Mauretania, Havre, 14 cs.
H. Reeve Angel & Co., Inc., Stockholm, Gothenburg, 6 cs.
Chatham & Phoenix National Bank, by same, 227 rolls.
Furness, Withy & Co., by same, 229 rolls.
Furness, Withy & Co., by same, 12 bls.
P. J. Schweitzer, Lafayette, Havre, 25 cs.
Judson Freight Forwarding Co., by same, 7 cs.
Japan Paper Co., by same, 11 cs.
Fernstrom Paper Co., Inc., Aden Maru, Hamburg, 4,063 rolls.
P. H. Petry & Co., S. Ventana, Bremen, 8 cs.
Wilkinson Bros. Co., Inc., Pr. Hayes, Genoa, 22 cs.
Hensel, Bruckman & Lorbacher, Reliance, Hamburg, 7 cs.
Hensel, Bruckman & Lorbacher, Volendam, Rotterdam, 20 cs.
F. C. Strype, Kepwick Hall, Marseilles, 6 cs.
Eleto Co., Paris, Havre, 18 cs.
P. J. Schweitzer, by same, 25 cs.
Standard Products Corp., by same, 28 cs.
Guibout Freres, by same, 21 cs.

RAGS, BAGGINGS, ETC.

E. J. Keller Co., Inc., Cleveland, Hamburg, 731 bls. rags.
Overton & Co., by same, 37 bls. rags.
Chemical National Bank, by same, 146 bls. paper stock.
National City Bank, by same, 176 bls. old cottons.
International Acceptance Bank, by same, 80 bls. rags.
Anglo South American Trust Co., Baltic, Liverpool, 85 bls. rags.
G. W. Millar & Co., Inc., Francisco, Hull, 208 bls. rags.
Brown Bros. & Co., by same, 43 bls. paper stock.
Katzenstein & Keene, Inc., Gasconier, Antwerp, 112 bls. rags.
Katzenstein & Keene, Inc., Gasconier, Antwerp, 109 bls. rags.
Mechanics & Metals National Bank, by same, 215 bls. rags.
Guaranty Trust Co., by same, 218 bls. paper stock.
G. W. Millar Co., Inc., Ala, Rotterdam, 322 bls. rags.
A. W. Fenton, Inc., by same, 131 bls. rags.
Whaling Waste Products Co., by same, 47 bls. rags.
Castle & Overton, by same, 208 bls. rags.
Castle & Overton, by same, 199 bls. baggings.
E. J. Keller Co., Inc., by same, 696 bls. rags.
Mechanics & Metals Nat'l Bank, by same, 137 bls. rags.
D. M. Hicks, by same, 25 bls. rags.
Royal Manufacturing Co., Pipestone County, Dunkirk, 63 bls. wipers.
Katzenstein & Keene, Inc., Pipestone County, Havre, 253 bls. rags.
Salomon Bros. & Co., by same, 25 bls. rags.
E. J. Keller Co., Inc., by same, 305 bls. rags.
Castle & Overton, Archimedes, Manchester, 13 bls. rags.
Equitable Trust Co., by same, 45 bls. rags.
L. H. Ahenheimer, by same, 199 bls. baggings.
Anglo South American Trust Co., by same, 37 bls. cotton waste.
Anglo South American Trust Co., Albania, London, 75 bls. rags.
W. Schall & Co., Aden Maru, Hamburg, 63 bls. rags.
Castle & Overton, by same, 239 bls. rags.
Guaranty Trust Co., by same, 60 bls. rags.
Brown Bros. & Co., by same, 75 bls. rags.
Castle & Overton, Incemore, Belfast, 110 bls. rags.
G. A. Reed, Incemore, Barrow, 35 bls. cotton waste.
E. J. Keller Co., Inc., Pres. Harding, Bremen, 58 bls. rags.
Brown Bros. & Co., by same, 267 bls. rags.
Bankers Trust Co., by same, 231 bls. rags.
Chemical National Bank, by same, 15 bls. rags.
National City Bank, by same, 148 bls. rags.
A. W. Fenton, Inc., by same, 63 bls. rags.
S. Birkenstein & Sons, by same, 226 bls. rags.
Goldman, Sachs & Co., S. Ventana, Bremen, 236 bls. rags.
L. H. Ahenheimer, by same, 322 bls. rags.
Chemical National Bank, by same, 158 bls. rags.
J. Abela & Co., Columbia, Malta, 175 bls. paper stock.
O'Neill Bros., Pres. Hayes, Kobe, 50 bls. cotton waste.
E. J. Keller Co., Inc., by same, 300 bls. rags.
Philadelphia National Bank, Volendam, Rotterdam, 146 bls. rags.
Katzenstein & Keene, Inc., by same, 231 bls. rags.
D. M. Hicks, by same, 73 bls. rags.
P. Berlowitz, by same, 223 bls. rags.
J. A. Molina & Co., Kepwick Hall, Barcelona, 80 bls. cotton waste.
State Bank, London Exchange, London, 106 bls. paper stock.
S. Birkenstein & Sons, Eastern Dawn, Antwerp, 209 bls. rags.
Mechanics & Metals National Bank, by same, 99 bls. rags.
Whaling Waste Products Co., by same, 96 bls. rags.
C. R. Spence & Co., by same, 120 bls. rags.
Anglo South American Trust Co., California, Glasgow, 119 bls. rags.
Brown Bros. & Co., by same, 124 bls. rags.
G. Carrizzo, W. Cawthorn, Naples, 100 bls. rags.
International Purchasing Co., Volendam, Rotterdam, 39 bls. paper stock.
International Acceptance Bank, by same, 21 bls. rags.
E. Butterworth & Co., Inc., by same, 254 bls. baggings.
S. Birkenstein & Sons, by same, 63 bls. paper stock.
E. J. Keller Co., Inc., by same, 283 bls. rags.
Katzenstein & Keene, Inc., Schodack, St. Nazaire, 160 bls. rags.

OLD ROPE

Ellermans-Wilson Line, Francisco, Hull, 49 coils.
Ellermans-Wilson Line, by same, 30 bales.
Brown Bros. & Co., by same, 201 coils.

(*Continued on page 60*)

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Tear it
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THE WISDOM
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We take care of our health, we lay up money, we make our roof tight and our clothing sufficient, but who provides wisely that we shall not be wanting in the best property of all—friends.—Emerson.

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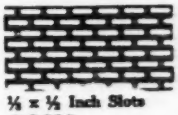

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Address Nearest Office
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W
WESTINGHOUSE ELECTRIC

Westinghouse

Imports of Paper and Paper Stock

(*Continued from page* 58)

Brown Bros. & Co., Pres. Harding, Bremen, 18 coils.
Brown Bros. & Co., by same, 9 bales.
Brown Bros. & Co., S. Ventana, Bremen, 68 coils.
Brown Bros. & Co., Volendam, Rotterdam, 166 coils.

CASEIN

Kalbfleisch Corp., Western World, Buenos Aires, 1,000 bags.

WOOD FLOUR

The Hansa Co., St. Anthony, Kotka, 7,687 bags, 307,480 ks.

WOOD PULP BOARDS

Lagerloef Trading Co., Pres. Harding, Bremen, 152 bls., 20 tons.

WOOD PULP

Castle & Overton, Orbita, Hamburg, 3,430 bls. wood pulp.
Castle & Overton, Ala, Rotterdam, 127 bls., 27 tons wood pulp.
Hartig Pulp Co., by same, 450 bls., 96 tons wood pulp.
E. M. Sergeant & Co., Stockholm, Gothenburg, 778 bls. dry soda pulp.
Johaneson, Wales & Sparre, Inc., by same, 300 bls. dry soda pulp.
Johaneson, Wales & Sparre, Inc., by same, 1,016 bls. sulphite pulp.
E. Naumburg & Co., Aden Maru, Hamburg, 800 bls., 122 tons wood pulp.
Bulkley, Dunton & Co., Pr. Harding, Stugsund, 795 bls. wood pulp.
Bulkley, Dunton & Co., America, Stugsund, 670 bls. wood pulp.
Hartig Pulp Co., by same, 1,500 bls., 307 tons wood pulp.
I. L. Beebe & Co., S. Ventana, Stugsund, 3,000 bls. wood pulp.
Guaranty Trust Co., by same, 600 bls. wood pulp.
H. Hollesen, by same, 1,050 bls. wood pulp.
E. J. Keller Co., Inc., Osterdal, Sikea, 6,000 bls. wood pulp.
Lagerloef Trading Co., St. Anthony, 425 bls. chemical wood pulp.

BOSTON IMPORTS

WEEK ENDING AUGUST 16, 1924

Scandinavian Pulp Agency, Inc., St. Anthony, Sundsvall, 375 bls., 75 tons sulphite pulp.
Nilsen, Lyon & Co., Inc., St. Anthony, Kotka, 900 bls., 150 tons, sulphite pulp.
Katzenstein & Keene, Inc., Manchester Shipper, Manchester, 143 bls. new cuttings.
Old Colony Trust Co., 63 coils old rope.

LOS ANGELES IMPORTS

WEEK ENDING AUGUST 16, 1924

J. H. Scott Paper Co., Pittsburgh, Hamburg, 244 rolls printing paper.

PHILADELPHIA IMPORTS

WEEK ENDING AUGUST 16, 1924

Philadelphia National Bank, Aden Maru, Hamburg, 217 bls. wrapping paper.
Corn Exchange Bank, by same, 32 cs. wrapping paper.
C. K. MacAlpine Co., Amassia, Hamburg, 24 bls. wrapping paper.
L. H. Abenheimer, Aden Maru, Hamburg, 572 bls. rags.
W. Schall & Co., by same, 49 bls. rags.
Brown Bros. & Co., by same, 17 bls. rags.
Philadelphia National Bank, by same, 205 bls. rags.
Kidder, Peabody Acc. Corp., by same, 239 bls. rags.
Castle & Overton, by same, 831 bls. rags.
Castle & Overton, Ala, Rotterdam, 235 bls. rags.
E. J. Keller Co., Inc., by same, 145 bls. rags.
A. W. Fenton, Inc., by same, 396 bls. rags.
D. J. Murphy, by same, 375 bls. rags.
Brown Bros. & Co., by same, 190 bls. rags.
Brown Bros. & Co., by same, 42 bls. thread waste.
Reis & Co., by same, 34 bls. thread waste.
J. A. Steer Co., Incemore, Liverpool, 672 bls. rags.
Brown Bros. & Co., Incemore, Belfast, 56 bls. rags.
Castle & Overton, Kepwick Hall, Barcelona, 65 bls. rags.
D. J. Murphy, by same, 142 bls. rags.
Katzenstein & Keene, Inc., London Exchange, London, 284 bls. rags.
Philadelphia National Bank, by same, 270 bls. rags.
A. W. Fenton, Inc., by same, 234 bls. rags.
Lincoln National Bank, by same, 175 bls. rags.
Castle & Overton, Eastern Dawn, Antwerp, 146 bls. rags.
A. Hurst & Co., Inc., by same, 45 bls. rags.
D. J. Murphy, by same, 72 bls. rags.
Brown Bros. & Co., by same, 27 bls. rags.
Philadelphia National Bank, by same, 84 bls. rags.
J. A. Steer & Co., by same, 258 bls. rags.
Katzenstein & Keene, Inc., Nessian, London, 91 bls. new cuttings.
Castle & Overton, Amassia, Hamburg, 103 bls. rags.
Castle & Overton, Breedyk, Rotterdam, 50 bls. rags.
E. J. Keller Co., Inc., Virginia, Copenhagen, 82 bls. rags.
E. J. Keller Co., Inc., Amassia, Hamburg, 416 bls. rags.
Wardlow-Thomas Paper Co., Incemore, Liverpool, 101 coils old rope.
New York Trust Co., Kepwick Hall, Barcelona, 43 coils old rope.

BALTIMORE IMPORTS

WEEK ENDING AUGUST 16, 1924

M. W. Payon, Pipestone County, Havre, 2 cs. writing paper.
Castle & Overton, Sinasta, Hamburg, 135 bls. wood pulp.
Johaneson, Wales & Sparre, Inc., Virginia, Gothenburg, 1,500 bls. kraft pulp.
Johaneson, Wales & Sparre, Inc., Ostendahl, Obbola, 350 bls. kraft pulp.

NEW ORLEANS IMPORTS

WEEK ENDING AUGUST 16, 1924

Castle & Overton, Ostende, France, 203 bls. rags.

PORTLAND, ME., IMPORTS

WEEK ENDING AUGUST 16, 1924

M. Gottesman & Co., Inc., Baltic, Scandinavian ports, 1,016 bls. sulphite pulp, 508 bls. sulphite pulp.
Scandinavian Pulp Agency, by same, 127 bls. bleached sulphite pulp, 2,540 bls. sulphate pulp.
The Borregard Company, Inc., by same, 875 bls. dry chemical pulp, 500 bls. dry chemical pulp.

SECURING FUNDS FOR EXPANSION

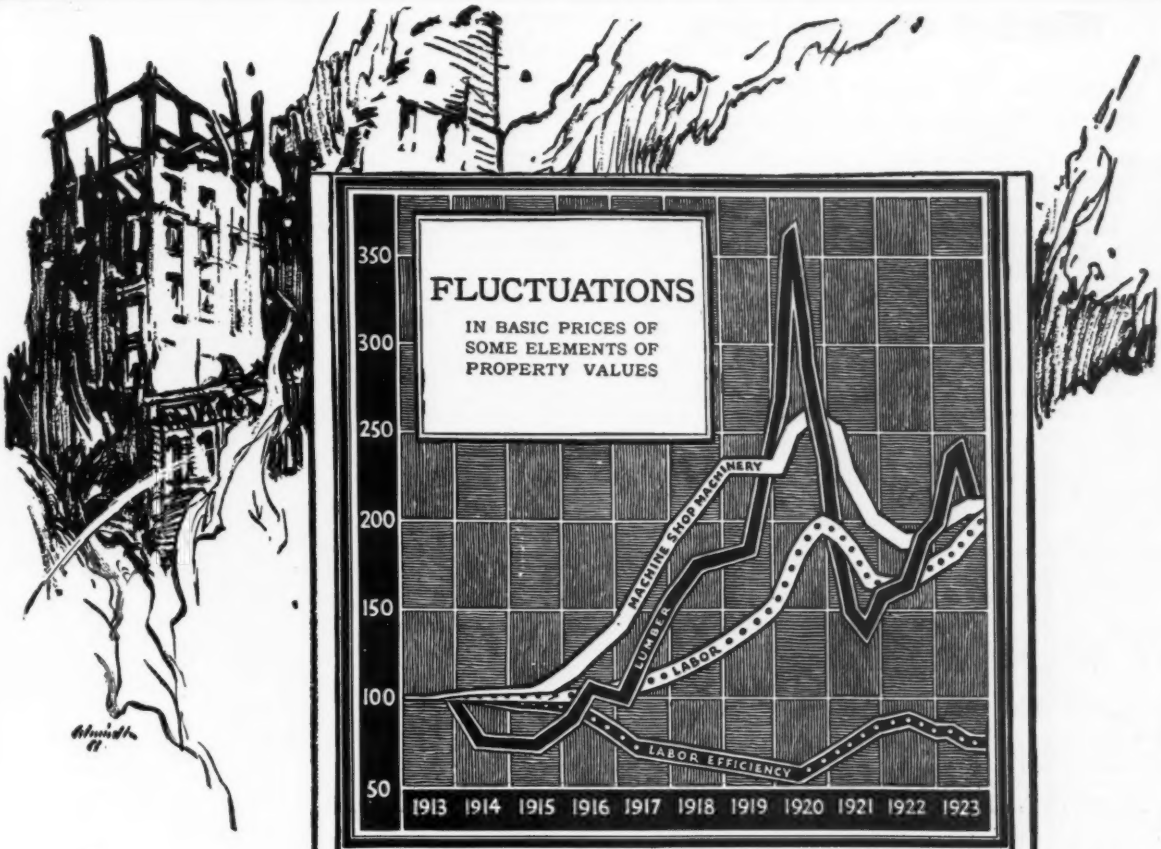
(*Continued from page* 56)

a bond issue and the corporation seeking a loan may find it to advantage to raise the funds required by means of a stock issue.

The business world, as is geenrally recognized, is susceptible to wide swings from prosperity into depression and back into prosperity. These swings affect the earning power of practically all corporations, in the sense that they have a theoretical maximum earning power under favorable conditions and a minimum earning power under unfavorable conditions. As the value of the corporate assets is based on their earning power more frequently than their sale value, the value of the assets varies with the change in earning power.

In theory, the fixed liability, i.e., the funded debt, of a corporation should correspond to the minimum earning and asset value while the difference between the minimum and maximum should be taken up by the common stock which has no fixed interest charge. The junior securities, therefore, depend upon the good or bad fortune of the corporation for the rate of income which they pay. During the past several years, however, a number of so-called semi-speculative bond issues have been sold to the public, and paid a higher rate of interest than is ordinarily paid on bonds, because they did not represent capitalization of the lowest possible value of assets or the least amount of earning power under adverse conditions. This, and the presence of common stocks, which correspond closely to the lowest value, tend to disturb the former division between stocks and bonds.

The issuance of fixed obligations, the interest on which could hardly be earned in a future period of adversity and the principal of which would exceed the value of the corporate assets under the same conditions, is a tendency which is viewed with alarm by old-time financiers. They claim that such bonds do not represent the best far-sighted policy for the corporation of issue, nor do they serve the best interests of the investor. A corporation which issues bonds on the basis of present prosperity and not on the basis of minimum asset value or earning power is distinctly capitalized for prosperity. Such corporations are capitalizing the equity created through the increased dollar value of their physical assets at a time when the value of the dollar is low and the asset value in dollars is correspondingly high. The presumption is that business will always be go and that the dollar will always have its present value—a presumption which is not borne out by economic experience.



FIRE and Guesswork

Insurance protects values, not properties. A policy cannot "cover" a particular building, unless it covers the full value of that building and its contents.

To properly insure, the value must be definitely known. To collect in case of loss, the value must be provable.

In spite of this, two businesses out of every three guess at the value and have little or no proof for it.

The guess may be accurate enough, but the insurance company cannot accept guesswork after a fire. It has to have proof. It wants proof of the "actual cash value" *at the time of the fire.*

Businesses that base their insurance on continuous American Appraisal service are always in a position to know and prove "actual cash value" at the time of the fire.

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INVESTIGATIONS VALUATIONS, REPORTS — INDUSTRIALS, PUBLIC UTILITIES, NATURAL RESOURCES

An American Appraisal

THE AUTHORITY

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Market Quotations

PAPER SECURITIES CLOSING PRICES TUESDAY

Reported by Stewart Tuttle & Co., Inc., 120 Broadway, New York

Stocks	BID	ASKED
Abitibi Power and Paper Company, Ltd.	59½	59¾
Abitibi Power and Paper Company, Ltd, Pfd.	99½	101
American Writing Paper Company, Pfd.	4	4¾
Brompton Pulp and Paper Company, Ltd.	34⅛	34½
Donnacona Paper Company, Ltd.	45	50
Donnacona Paper Company, Ltd., Pfd.	98	100
International Paper Company	55¾	56
International Paper Company, Pfd.	73½	75
Laurentide Company, Ltd.	85	87¼
Price Brothers	41¼	42
St. Maurice Paper Co., Ltd.	86	88
Smith (Howard) Paper Mills, Ltd.	38	39½
Spanish River Pulp and Paper Mills, Ltd.	108¾	108⅞
Spanish River Pulp and Paper Mills, Ltd., Pfd.	115	115½
Union Bag and Paper Corp.	48	49
Wayagamack Pulp and Paper Company, Ltd.	33	36
West Virginia Pulp and Paper Company	50	54

Bonds	BID	ASKED
Abitibi Power and Paper Company, Ltd., 1st 6s, 1934	102	103
Abitibi Power and Paper Company, Ltd., Gen. 6s 1940	94½	95½
Abitibi Power and Paper Company, Ltd., Con. 8s 1931	102½	103½
Belgo Canadian Paper Company, 1st 6s 1943	94½	95¼
Brown Company Serial 6s	99	100
Carthage Sulphite Pulp and Paper Company, 1st 8s 1941	35	50
Continental Paper and Bag Mills Corporation, 1st and Ref. 6½s, Series "A," 1944	94	95
Donnacona Paper Company, Ltd., 1st 6s 1940	98	100
Eddy Paper Company, 1st 7½s 1931	93	95
Gair (Robert) Company, 1st 7s 1937	97	98
International Paper Company, 1st and Ref. 5s (Series "B") 1947	86	87
Mattagami Pulp and Paper Company, 1st 6s 1937	58	60
Mattagami Pulp and Paper Company, 1st 7s 1949	20	25
Oswego Falls Corporation, 1st 8s 1942	101½	102
Oxford Paper Company, 1st and Ref. 6s (Series "A") 1947	98	100
Parker, Young Company, 1st 6½s 1944	95½	97½
Paterson Parchment Paper Company, 1st 6s (Series "A") 1938	95	96
Peshtigo Paper Company, 1st 7s (Series "B") 1942	92	94½
Price Bros. & Co., Ltd., 1st 6s (Series "A") 1943	98¼	99¼
Provincial Paper Mills, Ltd., 1st 6s 1940	98	100
Riordon Pulp and Paper Company, Ltd., Gen. 6s 1929	14	18
Riordon Pulp and Paper Company, Ltd., 6s 1942	80	84
Riordon Company, Ltd., 1st and Ref. 8s 1940	87½	88½
River Raisin Paper Company, 1st 8s 1936	103	104
Smith (Howard) Paper Mills, Ltd., 6s 1934	95	95¼
Smith (Howard) Paper Mills, Ltd., 1st Ref. 7s 1941	94½	96½
Spanish River Pulp and Paper Mills, Ltd., 1st 6s 1931	102½	104
Spanish River Pulp and Paper Mills, Ltd., Gen. 8s 1941	106	107
Wayagamack Pulp and Paper Company, Ltd., 1st 6s 1951	74	77

Paper

F. o. b. Mill		
Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@30.00
Superfine	14.00	@30.00
Tub Sized	10.00	@15.00
Engine Sized	8.00	@11.00
News—		
Rolls, contract	3.65	@ 3.90
Rolls, transit	3.75	@ 4.25
Sheets	4.15	@ 4.40
Side Runs	3.00	@ 3.50
Book, Cased—		
S. & S. C.	8.00	@ 9.50
M. F.	7.50	@ 8.85
Coated and Enamel	9.00	@14.00
Lithograph	9.00	@14.00
Tissues—		
White No. 1	.75	@ .76
White No. 2	.70	@ .80
Colored	1.05	@ 1.90
Anti-Tarnish	1.35	@ 1.90
Kraft	.85	@ 1.10
Manila	.75	@ .80
Kraft—		
No. 1 Domestic	5.50	@ 6.25
No. 2 Domestic	5.00	@ 5.75
Imported	5.50	@ 5.75
Manila—		
No. 1 Jute	9.00	@
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.00
Fibre Papers—		
No. 1 Fibre	5.50	@ 5.75
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.40	@ 2.60
S. Screening	3.25	@ 3.75
Card Middles	4.00	@ 5.00

Boards—per ton—		
News	47.50	@50.00
Straw	50.00	@55.00
Chip	37.50	@42.50
Binders' Boards	75.00	@80.00
Sgl. Mla. Ll. Chip	50.50	@55.50
Wood Pulp	70.00	@75.00
Container	57.50	@65.00
Sulphate Screenings—		
Coarse	.80	@ .90
Refined	1.75	@ 2.00
Ground Wood—		
Screenings	20.00	@25.00
Glassine—		
Bleached, basis 25 lbs.	12.00	@15.00
Bleached, basis 20 lbs.	14.00	@17.00

Mechanical Pulp

(Ex-Dock)		
No. 1 Imported	35.00	@40.00
(F. o. b. Mill)		
No. 1 Domestic	27.50	@34.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)		
Sulphite (Imported)—		
Bleached	3.75	@ 4.50
Easy Bleaching	2.75	@ 3.25
No. 1 strong unbleached	2.75	@ 3.00
No. 2 strong unbleached	2.50	@ 2.75
No. 1 Kraft	2.50	@ 2.85
Sulphate—		
Bleached	3.50	@ 3.65
(F. o. b. Pulp Mill)		
Sulphite (Domestic)—		
Bleached	3.50	@ 4.50
Easy Bleaching Sulphite	2.60	@ 3.00
News Sulphite	2.40	@ 2.60
Mitscherlich	2.60	@ 3.00
Kraft (Domestic)	2.60	@ 2.85
Soda Bleached	3.90	@ 4.10

Domestic Rags

New Rags

Prices to Mill, f. o. b. N. Y.		
Shirt Cuttings—		
New White, No. 1	13.50	@14.00
New White, No. 2	6.50	@ 7.00
Silesias, No. 1	7.50	@ 8.00
New Unbleached	10.50	@11.00
Washables	5.50	@ 6.15
Fancy	6.50	@ 7.00
Blue Overall	8.00	@ 8.50
New Blue	5.00	@ 5.50
New Black Soft	4.65	@ 5.15
New Light Seconds	3.00	@ 3.25
O. D. Khaki Cuttings	4.50	@ 4.75
Men's Corduroy	4.00	@ 4.25
New Canvas	7.00	@ 7.50
New Black Mixed	2.75	@ 3.00

Old Rags

White, No. 1—		
Repacked	6.25	@ 6.75
Miscellaneous	5.50	@ 5.75
White, No. 2—		
Repacked	4.25	@ 4.50
Miscellaneous	3.75	@ 4.00
St. Soiled, White	2.80	@ 3.00
Thirds and Blues—		
Repacked	3.62½	@ 3.87½
Miscellaneous	2.90	@ 3.15
Black Stockings	3.50	@ 3.75
Roofing Rags—		
Cloth Strippings	1.90	@ 2.00
No. 1	2.10	@ 2.20
No. 2	2.10	@ 2.20
No. 3	.90	@ 1.00
No. 4	.90	@ 1.00
No. 5A	1.50	@ 1.60

Foreign Rags

New Light Silesias	7.50	@ 8.75
Light Flannelettes	8.00	@ 8.25
Unbl'chd Cottons	9.00	@ 9.50
New White Cuttings	11.50	@12.50
New Light Oxfords	7.75	@ 8.25
New Light Prints	7.25	@ 7.75
New Mixed Cuttings	3.25	@ 3.75
New Dark Cuttings	3.00	@ 3.50
No. 1 White Linens	9.00	@10.00
No. 2 White Linens	7.00	@ 8.00
No. 3 White Linens	6.00	@ 6.50
No. 4 White Linens	4.50	@ 5.50
Old Extra Light Prints	4.00	@ 4.50
Ord. Light Prints	3.00	@ 3.50
Med. Light Prints	2.40	@ 2.50
Dutch Blue Cottons	3.50	@ 4.00
Ger. Blue Cottons	3.00	@ 3.25
Ger. Blue Linens	3.50	@ 4.00
Checks and Blues	2.25	@ 2.50
Dark Cottons	1.50	@ 1.75
Shoppery	1.40	@ 1.60
French Blues	3.25	@ 3.75

Bagging

Prices to Mill F. o. b. N. Y.		
Gunny No. 1—		
Foreign	1.60	@ 1.70
Domestic	1.55	@ 1.65
Wool, Tares, light	1.40	@ 1.50
Wool, Tares, heavy	1.40	@ 1.50
Bright Bagging	1.25	@ 1.40
Sound Bagging	.90	@ 1.00
Manila Rope—		
Foreign	6.25	@ 6.50
Domestic	6.50	@ 6.75
New Bu. Cut	2.40	@ 2.60
Hessian Jute Threads—		
Foreign	2.25	@ 2.50
Domestic	2.10	@ 2.20

Old Waste Papers
(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.50	@ 3.75
Hard, White, No. 2	3.00	@ 3.15
Soft, White, No. 1	2.50	@ 2.70
Flat Stock—		
Stitchless	1.30	@ 1.40
Over Issue Mag.	1.30	@ 1.40
Solid Flat Book	1.20	@ 1.30
Crumpled No. 1	1.90	@ 1.00
Solid Book Ledger	1.80	@ 1.90
Ledger Stock	1.30	@ 1.40
New B. B. Chips	.50	@ .55
Manilas—		
New Env. Cut	2.45	@ 2.55
New Cut. No. 1	1.65	@ 1.90
Extra No. 1 old	1.30	@ 1.40
Print	.80	@ .90
Container Board	.55	@ .65
Bogus Wrapper	.60	@ .70
Old Krafts Machine compressed bales	1.70	@ 1.80
News—		
No. 1 White News	1.65	@ 1.75
Strictly Overissue	.80	@ .90
Strictly Folded	.50	@ .60
No. 1 Mixed Paper	.40	@ .50
Common Paper	.35	@ .40

Twines

Cotton—(F. o. b. Mill)—		
No. 1	.43	@ .48
No. 2	.41	@ .43
No. 3	.40	@ .42
India, No. 6 basis—		
Light	.19	@ .20
Dark	.17	@ .19
B. C., 18 basis	.39	@ .41
A. B. Italian, 18 Basis	.51	@ .61
Finished Jute—		
Dark, 18 basis	.30	@ .31
Light, 18 basis	.28	@ .30
Jute Wrapping, 3-6 Ply—		
No. 1	.20	@ .23
No. 2	.18	@ .20
Tube Rope—		
4-ply and larger	.15	@ .17
Fine Tube Yarn—		
5-ply and larger	.20	@ .23
4-ply	.21	@ .24
3-ply	.22	@ .25
Unfinished India—		
Basis	.14	@ .15
Paper Makers' Twine		
Balls	.12	@ .13
Box Twine, 2-3 ply	.14	@ .15
June Rope	.20	@ .40
Amer. Hemp, 6	.30	@ .32
Sisal Hay Rope—		
No. 1 Basis	.14	@ .16
No. 2 Basis	.10	@ .12
Sisal Lath Yarn—		
No. 1	.14	@ .15
No. 2	.11	@ .13
Manila Rope	.18	@ .19

CHICAGO

[FROM OUR REGULAR CORRESPONDENT]

Paper

F. o. b. Mill		
All Rag Bond	35 @	40
No. 1 Rag Bond	25 @	35
No. 2 Rag Bond	14 @	25
Water Marked Sulphite	9 @	12
Sulphite Bond	7 @	10¾
Sulphite Ledger	9½ @	12
Superfine Writing	18 @	24
No. 1 Fine Writing	14 @	18
No. 2 Fine Writing	12 @	14
No. 3 Fine Writing	9 @	12
No. 1 M. F. Book	5¾ @	7½
No. 1 S. & S. C. Book	6½ @	7¾
Coated Book	8 @	10
Coated Label	8 @	10
News—Rolls, mill	3¾ @	4½
News—Sheets, mill	4 @	4¾
No. 1 Manila	4¾ @	6¼
No. 1 Fibre	4¾ @	5½
No. 2 Manila	3¾ @	4¼
Butchers' Manila	3¾ @	4½
No. 1 Kraft	5¾ @	6¼
No. 2 Kraft	4¾ @	5
Wood Tag Boards	4½ @	6
Sulphite Screenings	2¼ @	2¾
Boards, per ton—		
Plain Chip	$37.50	@42.50
Solid news	40.00	@45.00
Manila Line Chip	52.50	@55.00
Container Lined—		
85 Test	55.00	@60.00
100 Test	60.00	@65.00

Old Papers

F. o. b. Chicago		
Shavings—		
No. 1 Hard White	3.25 @	—
White Envel. Cuttings	3.25 @	—
No. 1 Soft Shav.	2.95 @	3.00
No. 1 Mixed	1.65 @	1.75
No. 2 Mixed	1.25 @	1.35
Ledgers and Writings	1.60 @	1.65
Solid Books	1.65 @	1.70

No. 1 Books, Light.	1.40	¾	1.50
Blanks	1.95	@	2.00
Ex. No. 1 Manila..	2.00	@	2.10
Manila Envelope Cuttings	2.10	@	2.15
No. 1 Manila...	1.25	@	1.30
Folded News (over issue)	1.00	@	1.10
Old Newspapers—			
No. 1	1.00	@	1.00
No. 2	.80	@	.85
Mixed Papers—			
No. 1	.85	@	.90
No. 2	.70	@	.80
Straw Clippings	.90	@	—
Binders' Clippings..	.90	@	—
Kraft	2.10	@	2.25
New Kraft Cuts	2.25	@	2.40
Roofing Stock, f. o. b. Chicago, Net Cash—			
No. 1	$42.00	@	—
No. 2	40.00	@	—
No. 3	38.00	@	—
No. 4	38.00	@	—

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT]

Paper

Bonds	.09½	@	.53
Ledgers	.15	@	.40
Writings—			
Superfine	.15	@	.20
Extra fine	.12	@	.22
Fine	.20	@	.30
Fine, No. 2	.20	@	.25
Fine, No. 3	.15	@	.20
Book, M. F.	.09¾	@	.12¾
Book, S. S. & C..	.11	@	.15
Book, Coated	.14¼	@	.20
Coated Lithograph.	.10	@	.15
Label	.10	@	.15
News	.05	@	.07
No. 1 Jute Manila	.12	@	.13
Manila Sul., No. 1	.08	@	.10
Manila No. 2	.07½	@	.08
No. 2 Kraft	—	@	.08½
No. 1 Kraft	—	@	.09½
Common Bogus	.03½	@	.04
Shaw Board	55.00	@	60.00
News Board	42.50	@	—
Chip Board	40.00	@	42.50
Wood Pulp Board. (Carload Lots)	2.75	@	3.00
Binder Boards—			
Per ton	70.00	@	75.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	61.00	@	63.00
Slaters	66.00	@	68.00
Best Tarred, 1-ply (per roll)	1.70	@	1.80
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply.	2.00	@	2.10

Bagging

F. o. b. Phila.

Gunny No. 1—			
Foreign	1.60	@	1.65
Domestic	1.75	@	—
Manila Rope	6.00	@	6.37½
Sisal Rope	1.25	@	—
Mixed Rope	1.25	@	—
Scrap Burlaps	1.00	@	1.25
Wool Tares, heavy.	2.00	@	2.13
Mixed Strings	1.00	@	—
No. 1, New Lt. Burlap	2.00	@	—
New Burlap Cuttings	2.00	@	2.25

Old Papers

F. o. b. Phila.

Shavings—			
No. 1, Hard White	3.25	@	3.50
No. 2, Hard White	3.00	@	3.25
No. 1 Soft White	2.30	@	2.50
No. 2 Soft White	1.75	@	2.00
No. 1 Mixed	1.50	@	1.75
No. 2 Mixed	1.00	@	1.10
Solid Ledger Stock.	1.50	@	1.75
Writing Paper	1.25	@	1.50
No. 1 Books, heavy.	1.30	@	1.35
No. 2 Books, light.	.90	@	1.00
No. 1 New Manila.	2.30	@	2.40
No. 1 Old Manila..	1.50	@	1.75
Container Manila..	.90	@	1.00
Old Kraft	2.15	@	2.25
Overissue News	.80	@	—
Old Newspaper	.50	@	.60
No. 1 Mixed Paper.	.70	@	.75
Common Paper	.50	@	.60
Straw Board, Chip.	.50	@	.60
Binders Bd., Chip..	.50	@	.60

Domestic Rags—New.

Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.12	@	.13
New White, No. 2	.07	@	—
Silesias, No. 1	.08¼	@	.08½
New Unbleached.	.11½	@	.11¾
Washable	.05½	@	.05¾
Fancy	.07	@	.07¼
Cottons—according to grades—			
Blue Overall	.09¼	@	.09½
New Blue	.03½	@	.03¾
New Black Soft.	.06	@	.06¾
New Light Seconds	.03½	@	.03¼
Khaki Cuttings..	.05½	@	.06
Corduroy	.04	@	.04½
New Canvas	.10½	@	.11
New Black Mixed	.05	@	.05¼
Old White, No. 1—			
Repacked	7.50	@	8.00
Miscellaneous	6.25	@	6.50
White, No. 2—			
Repacked	.05	@	.05½
Miscellaneous	.04¾	@	.05⅛
Thirds and Blues—			
Repacked	3.65	@	—
Miscellaneous	2.80	@	—
Black Stockings..	4.00	@	4.50
Roofing Stock—			
No. 1	1.75	@	1.85
No. 2	1.65	@	1.75
No. 3	1.15	@	1.20
No. 4	1.00	@	1.35
No. 5A	1.40	@	—
B	1.25		nominal
C	1.15		nominal

TORONTO

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.11	@	.12½
Light tinted	.12	@	.13½
Dark tinted	.13½	@	.15
Ledgers (sulphite).	—	@	.13
Writing	.09½	@	.12
News, f. o. b. Mills—			
Rolls (carloads)	3.75	@	—
Sheets (carloads)	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	9.00	@	—
No. 2 M. F. (carloads)	8.00	@	—
No. 3 M. F. (carloads)	7.50	@	—
No. 1 S. C. (carloads)	9.50	@	—
No. 2 S. C. (carloads)	8.50	@	—
No. 1 Coated and litho	14.50	@	—
No. 2 Coated and litho	13.50	@	—
No. 3 Coated and litho	12.75	@	—
Wrapping—			
Rag Brown	4.75	@	—
White Rag	5.25	@	—
"B" Manila	5.50	@	—
No. 1 Manila	6.50	@	—
Fiber	6.50	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	$27.00	@	28.00
Sulphite easy bleaching	55.00	@	60.00
Sulphite news grade	50.00	@	55.00
Sulphite, bleached.	75.00	@	80.00
Sulphate	60.00	@	62.50

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut..	3.60	@	—
Soft White Book shavings	2.80	@	—
White Blk. News	1.75	@	—
Book and Ledger—			
Flat Magazine and Book Stock(old)	1.25	@	—
Light and Crumpled Book Stock	1.10	@	—
Ledgers and Writings	1.50	@	—
Solid Ledgers	1.50	@	—
Manilas—			
New Manila Cut.	—	@	1.60
Printed Manilas..	1.10	@	—
Kraft	2.05	@	—
News and Scrap—			
Strictly Overissue.	.80	@	—
Folded News	.80	@	—
No. 1 Mixed Papers	—	@	.60

Domestic Rags—
Price to mills, f. o. b. Toronto
Per lb.

No. 1 White shirt cuttings	.13½	@	.13¾
No. 2 White shirt cuttings	.06½	@	.07
Fancy shirt cuttings	.07	@	.07¼
No. 1 Old Whites.	—	@	—
Third and blues	.05	@	.05¼

Per cwt.

Black stockings..	.04	@	—
Roofing stock:			
No. 1	2.20	@	—
No. 2	2.10	@	—
Manila rope	.06	@	.06¼
No. 2	1.55	@	—

BOSTON

[FROM OUR REGULAR CORRESPONDENT]

Paper

Ledgers—			
Sulphite	.12½	@	.18
Rag Content	.21	@	.36½
All Rag	.38	@	.50
Bonds—			
Sulphite	.09½	@	.14
Rag Content	.16	@	.33½
All Rag	.36½	@	.51
Writings	.10	@	.20
Superfines	.20	@	.48
News	.05	@	.06½
Book, M. F.	.07¼	@	.10¾
Book, Super	.07½	@	.11
Book, Coated	.13	@	.20
Coated Litho.	.10	@	.15
Label	.12	@	.15
Jute Manila No. 1.	.12	@	.13
Manila, Sul. No. 1.	.08	@	.09
Manila, Sul. No. 2.	.07½	@	.08
No. 1 Kraft	—	@	.09
No. 2 Kraft	—	@	.08
Common Bogus	.03½	@	.04
Straw Board	55.00	@	60.00
News Board	47.50	@	50.00
Chip Board	45.00	@	47.50
Wood Pulp Board.	80.00	@	85.00
Binder Boards	80.00	@	90.00
Tarred Felts—			
Regular	61.00	@	63.00
Slater's	66.00	@	68.00
Best Tarred, 1 Ply, roll	1.50	@	1.60
Best Tarred, 2 Ply, roll	1.70	@	1.80
Best Tarred, 3 Ply, roll	2.00	@	2.10

Old Papers

Shavings—			
No. 1 Hard White	3.60	@	4.00
White Blank News.	1.00	@	1.15
Manila Env. Cuttings	.028	@	.03
No. 2 Hard White	3.25	@	3.50
No. 1 Soft White.	3.00	@	3.10
No. 2 Soft White.	2.00	@	2.25
No. 1 Mixed.	1.60	@	1.75
No. 2 Mixed.	1.25	@	1.50
Solid Ledger Stock.	1.75	@	2.00
Writing Paper	—	@	1.70
No. 1 Books, Heavy	1.60	@	1.80
No. 1 Books, Light	1.40	@	1.50
No. 1 New Manila.	2.50	@	2.60
No. 1 Old Manila.	1.75	@	2.00
Container Manila	1.00	@	—
Old Kraft	2.00	@	—
Overissue News	1.20	@	1.30
Old Newspapers	—	@	.85
No. 1 Mixed Paper.	.70	@	.75
Box Board, Chip.	.70	@	.75

Bagging

Price f. o. b. Boston

Gunny No. 1—			
Foreign	1.12½	@	2.00
Domestic	2.00	@	2.12½
Manila Rope	6.00	@	6.50
Mixed Rope	1.50	@	1.62½
Scrap Burlaps	1.25	@	1.50
Wool Tares, heavy.	2.00	@	2.13
Mixed Strings	1.50	@	1.62½
New Burlap Cuttings	2.00	@	2.25

Domestic Rags (New)

Price f. o. b. Boston

Shirt Cuttings—			
New White No. 1	.13½	@	.14
Silesias, No. 1	.09	@	.09½
New Unbleached.	.12½	@	.13
Washable	.06	@	.06½
Fancy	.07	@	.07¼
Cottons — according to grades, Blue Overall	.09½	@	.10
New Blue	.05½	@	.06
New Black, soft	.06	@	.06¾
Khaki Cuttings	.05½	@	.06
Corduroy	.04	@	.04½
New Canvas	.10½	@	.11

Domestic Rags (Old)

Price f. o. b. Boston

White No. 1—			
Repacked	7.50	@	8.00
Miscellaneous	6.50	@	7.00
White No. 2—			
Repacked	5.50	@	6.00
Miscellaneous	4.75	@	5.50
Thirds and Blues—			
Repacked	3.75	@	4.00
Miscellaneous	3.00	@	3.25
Roofing Stock—			
No. 1	2.25	@	2.37
No. 2	2.12½	@	2.25
No. 3	1.50	@	1.75
No. 4	1.15	@	1.20

Paper Men Visit Port Arthur

E. W. Backus, head of the Fort Frances Pulp and Paper Company, accompanied by a number of leading financial and business men, recently paid a visit to Port Arthur and Fort William, Ont., where they were tendered a reception and visited the new pulp mill of the Great Lakes Paper Company and other industries in the pulp and paper line. It is understood that proceedings are under way to erect in the near future a news print mill in connection with the activities of the Great Lakes Company.

Disher Paper Co. Files Bankruptcy Petition

[FROM OUR REGULAR CORRESPONDENT]

ROCHESTER, N. Y., August 18, 1924.—The Disher Paper Company of Buffalo filed a petition in bankruptcy August 15, with liabilities listed at $24,214 and assets at $10,804.

New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
Wednesday, August 20, 1924.

As time goes on the betterment in the paper market becomes less and less microscopic. Since the first change for the better was noted a short time ago the improvement has become more pronounced and during the past week it became tangible enough to make certain the prediction of good Fall business. Paper men without exception declare that the Fall business is going to be good and some of them are optimistic enough to express the opinion that the year will wind up with glowing colors. The cooler weather of the past week had a visible effect on business. Orders were more numerous and of greater volume. In addition to that there is an ever increasing number of inquiries which shows that the buyers are on the alert and are beginning to think of buying, even if they have not actually reached the point where they are ready to buy.

Further encouragement is found in the fact that business reports from all over the country are much more satisfactory than they were a few weeks ago. Industrial conditions are much improved, factories running on better time and more men actually employed than a month ago. Several labor disputes have been settled and American industry is apparently settling down to a steadier performance of its duties. In almost every industry the present production has materially increased over the production of two or three weeks ago, all of which means much to the future prosperity of the paper market. There is no question but that political uncertainty is still acting to some extent as a business deterrent. There are many who believe that this will influence those who are most susceptible to skepticism and that it may help block the wheels of progress until the Presidential election in November has passed and there is no longer any doubt. Whatever the results of that election may be, it is the opinion of business men that American enterprise will then catch a gratifying stride, and the paper men are confident that business in their own particular field will be very good and perhaps excellent. At any rate the worst is over and the paper market will have no serious breakers to obstruct its passage in the immediate future.

News print is moving evenly at the present time. There is more spot buying and more inquiries looking to the near future's business. The condition here is improved any way one chooses to look at it.

Book papers are more active and the mills are running nearer to normal capacity. There has been a considerable revival in the printing trade and printers are placing more liberal orders and are making many inquiries regarding prices and stock.

Tissues are having hard work to stage a come-back. After having weeks of pitiful slowness they showed a little more vitality but this was short lived and last week tissues again sank back into the rut which has been engulfing them.

Writing papers are slowly coming back to their own. They have undergone a very commendable improvement during the past week, and the future in this line is looking particularly bright.

The demand for board is also better and the board mills are getting back to a nearer normal production. A vastly improved demand with somewhat better prices are anticipated.

Prices throughout the market are holding generally strong. There has been very little price cutting considering the conditions which have existed for weeks, and this will materially aid the market in getting back where it belongs. There is every indication that when the demand really gets back to somewhere near normal there will be a wholesale revision of prices and that the revision will be upward. The buyers are beginning to be convinced of this for many are already placing orders at the present prices instead of waiting to pay later the higher prices which seem inevitable.

Mechanical Pulp

The pulp men declare that pulp business is picking up and that the condition of the market at this writing is satisfactory if not gratifying. Prices hold firm and some good business is coming in. The future prospects are bright and the buyers are showing a keener interest.

Chemical Pulp

Chemical pulp is in good demand, especially as regards the foreign. The Fall business is already setting in and there has been a marked improvement in demand during the past week. Scandinavian Kraft is in especially good demand.

Rags

The rag market is enjoying better business than in some time. Many orders are reaching the market which cannot be filled immediately because of the shortage of stock. Users of rags have come to realize that this shortage is something more than a bugaboo and they are more inclined to pay a good price than they were some weeks ago. As a result some grades of rags have moved upward in price and this may be taken as a sure forerunner of a more general upward trend. The shortage and the increased demand has also stimulated the collectors. Many of them some time ago threw up their hands in disgust, seeing nothing hopeful from their standpoint in the low prices and lack of demand. They despaired of the outlook and felt that time spent in making collections under the circumstances was little better than time thrown away. They take a different view of it now; they are hustling at their collections, and more stock is coming into the market than for some time.

Old Rope and Bagging

Old rope is still very sluggish in its demand although there has been a slight improvement. Bagging, which has been very slow, showed a slight recovery during the past week, and it is believed that both items will pick up gradually from now on.

Waste Paper

There is a steadily increasing demand for waste paper, and this applies to each and every grade. Prices hold firm and here and there is noted an advance in price, while daily there are reports of sales made at a figure higher than those quoted as the market's standard. There are more cases of these sales at an advance than there are of price cutting.

Twine

Twine is slowly and laboriously working up a little better demand. The lack of interest in twine and the unwillingness even to take advantage of the low prices which have prevailed for weeks is one of the mysteries of the market but it is believed that twine has at last seen the worst of it and can look forward to a considerable improvement when Fall sets in.

Want More Equitable Freight Rates on Rosin

KALAMAZOO, Mich., August 18, 1924.—A fight for equitable freight rates on rosin from points below the Ohio river to this section of Michigan has been started by the Western Paper Maker's Chemical Company, Kalamazoo, and the Tanglefoot Company, Grand Rapids.

Through Harry C. Howard these two concerns have asked for an injunction restraining the Interstate Commerce Commission from putting in effect on August 20 new rates on the commodity above noted.

Under the new tariff to become effective immediately the freight rate on rosin from New Orleans to Chicago will be 37 cents and to Kalamazoo 39 cents. The rate from New Orleans to Milwaukee will be 39 cents and to Grand Rapids, 40 cents per cwt. The plaintiffs ask that the Chicago and Milwaukee rates be made effective for Kalamazoo and Grand Rapids respectively.

The suit pending, which must be heard in the United States district court, three judges presiding, is the outcome of a rosin freight rate hearing, held over a year ago, resulting in the suspension of former tariffs and the substitution of new tariffs, alleged by the plaintiffs to be quite as objectionable as those superseded.

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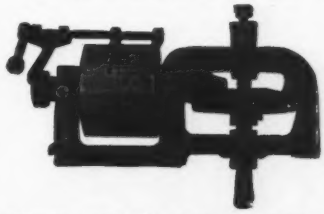

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Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, August 20, 1924.

While the past week brought no great stir to the chemical market there is a much better tone to the market than existed a week or so ago. Chemical men are agreed that business will materially improve this Fall and that banner business should result sometime between now and the end of the year. Whether it will come in late September, in October or still later, is of course, a matter for time to disclose. The situation briefly stated is as follows: the manufacturers have no stock and the consumers have long been buying only for immediate use. While some of them have loosened up a trifle they still show a disposition to buy for the present only. Because of the slow demand the manufacturers have been forced into a position where they have given almost as little thought to the future as have the consumers. The result is that when business comes it is bound to come with a rush and the manufacturers as well as the consumers may find that they have given too little thought to the future.

The heat was a little less intense the past week but that did not appear to help business materially, indicating that, perhaps, too much stress has been put on the weather as a business deterrent. There is a little more business coming in from the paper industry due to the fact that the paper mills are working on better time schedule. Business as a whole is picking up but it is doing so very slowly and the help that it gives the chemical market is likewise meager. The chemical market here is beginning to feel the effect of the silk strike in Paterson, N. J. This has cut off one source of demand for several chemicals which are used by the industry. The strike is so far confined to Paterson but should the strike extend to the entire industry its effect will be more serious. Generally speaking all chemicals held their own the past week or showed slight improvement. Prices as a rule are holding firm, the only change noted being a slight increase.

BLANC FIXE.—Blanc fixe continues with little or no change. The demand is still slight and the market is almost destitute of stock. The manufacturers continue to make it their aim to produce only enough to satisfy the immediate demand. The price is from $75 to $80 a ton for the powder and from $50 to $55 for the pulp.

BLEACHING POWDER.—The market has little distress bleaching powder and here also the manufacturers are curtailing their production to meet the meagre demand which exists at the present time. The price is from 1.90 to 2.15 cents a pound.

CAUSTIC SODA.—The demand for caustic soda is fair and has showed some improvement. The heavy withdrawals which are looked for at this time have not yet materialized, however. The price remains at from 3.10 to 3.15 cents a pound on a flate basis at the works.

CASEIN.—The only new condition concerning casein exists in the fact that some manufacturers are now quoting it for the balance of the year at the existing price whereas they have only been quoting it at that price for immediate shipment. The demand is improving and there is no distress stock. It is quoted at from 10½ to 11 cents a pound.

CHINA CLAY.—China clay continues to show new energy due to the fact that some of the trades and industries which use vast quantities of this commodity have picked up and are now buying more liberally than for some weeks. It has just completed a very satisfactory week's business. It is quoted at from $16 to $20 a ton for the imported grades and from $12 to $15 a ton for the domestic grades.

CHLORINE.—Chlorine which has been lagging is said to be somewhat improved. The past week seemed to break the ice for this commodity and better business is apparently just ahead. The price holds at from 4.50 to 7.00 cents a pound in tanks.

ROSIN.—Rosin was the only commodity to record a change in price the past week, forging ahead to $5.90 for 280 pounds. The former quotation had been from $5.75 to $5.80. The demand has been slightly better and the increase is probably due to the fact that better business is seen ahead. There have been reports of sales of the higher grades at over $6.00.

SALT CAKE.—The market in salt cake is improving. The dealers are confident that it will firm up from now on and that the demand will be exceptionally god before many weeks and will remain so the rest of the year. It is quoted at from $18 to $21 a ton.

SODA ASH.—Soda ash which has been improving the past two weeks kept up its good work last week and is now enjoying a very satisfactory demand. Users of this commodity are taking out good sized quantities and the future looks bright. The price remains unchanged, the quotation being 1.38 cents a pound on a flat basis at the works.

SULPHATE OF ALUMINA.—The demand for sulphate of alumina still is very backward. It does not seem to share the general improvement of the market. The price holds firm at from 1.30 to 1.35 cents for the commercial grade at the Eastern works and from 2.10 to 2.25 cents a pound for iron free.

SULPHUR.—Sulphur remains one of the slowest of the chemicals. There is only hand to mouth buying for this commodity and it goes along week after week meeting just about the same limited demand. Dealers feel that the time is about at hand when it will have to pick up. The price is still from $18 to $19 a ton.

TALC.—Talc is doing much better than for some weeks. It is now having quite a spirited demand. The past week saw some good orders booked. The price remains at from $16 to $17 a ton.

PHILADELPHIA TRADE IMPROVES

(*Continued from page* 30)

the Division for the Announcement Association and including greeting card stocks, business, mourning and wedding announcements. The Accounting Department of the Ward Company will be removed to the rear in order to make room for the new exhibition to become a permanent feature. In addition to the Ward Company distribution of the Linweave Announcements, the Raymond and McNutt Company also are handling the line in this territory. President George W. Ward will attend the meeting of the Hammermill Paper Company in Erie on August 27 and 28.

Norbert Considine Returns from Europe

President Norbert A. Considine, of the Paper House of Pennsylvania, 28 North Sixth street, returned to headquarters last Friday following a two months' travel in European parts and including the countries of Norway, England, France and Germany. While in Norway he visited the mills in that section for which the Paper House of Pennsylvania are local distributors and found that the mills are well booked with orders for American consumption and with Europe rapidly getting on its feet again the home markets are placing big contracts for the news print supply for many months to come. President Considne who is also vice-president of the Poor Richard Club of Philadelphia went abroad with the delegates to the convention of the Advertising Clubs of the World, held in London early in July, and afterward toured the continent, participating in the honors conferred on the American advertising men.

Charles Magarge Levis Back from Europe

Following a two months' sojourn in Europe, Vice-President Charles Megarge Levis, of Curtis and Brothers, Inc., is back at his desk in the firm's local sales office, 16 S. Fifth street. He leaves this week for Saranac Lake where his family have secured a summer cottage for the remainder of the season. The trip abroad was purely a pleasure jaunt.

To Have Golf Tournament

The Philadelphia Paper Trade Golf Association will hold a tournament at the Philmont Country Club on Tuesday and Wednesday, September 16 and 17.